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MEDICAL DEPARTMENT

UNITED STATES ARMY

IN WORLD WAR II

U. S. Army. Surgeon-General's Office

MEDICAL DEPARTMENT, UNITED STATES ARMY

NEUROPSYCHIATRY IN WORLD WAR II

Volume II

OVERSEAS THEATERS

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Volume II

OVERSEAS THEATERS

MEDICAL DEPARTMENT, UNITED STATES ARMY

The volumes comprising the official history of the Medical Department of the United States Army in World War II are prepared by The Historical Unit, United States Army Medical Department, and published under the direction of The Surgeon General, United States Army. These volumes are divided into two series: (1) The administrative or operational series; and (2) the professional, or clinical and technical, series. This is one of the volumes published in the latter series.

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Foreword

The experiences of military neuropsychiatry in two World Wars have been extensive, and the lessons learned from them equally so. In both wars, the basic therapies were the same. Nevertheless, it is noteworthy that the major lessons from World War I had to be largely rediscovered and relearned in the Second World War: that treatment of the acute breakdown must begin as close to the site of its inception as possible.

The most significant gains of preventive psychiatry in World War II were not achieved until command recognized its responsibility for the mental health of troops. When psychiatrists were accepted at staff level, they were soon able to demonstrate that they had much to contribute. Thus, much too late in the war was the neuropsychiatry specialty recognized, accepted, and practiced throughout the entire Military Establishment. Treatment of combat cases began within the sound of artillery, to be continued in rear echelons. Advice on preventive psychiatry and other high level psychiatric problems was made available to command.

Regardless of what the future may bring, these experiences of military neuropsychiatry must be recorded, preserved, and made available for study at all times. Their sum total is a remarkable history of human behavior in abnormal circumstances of great stress, and of the steps taken by neuropsychiatrists to treat and prevent combat psychiatric casualties. Despite its military nature, this history can make an important contribution to the peacetime practice of neuropsychiatry.

The Army Medical Department expresses deep gratitude to the editor, authors, and many contributors to this volume. It would be impossible to cite all here. However, my appreciation is extended to M. Ralph Kaufman, M.D., the late Lindsay E. Beaton, M.D., Calvin S. Drayer, M.D., and Lloyd J. Thompson, M.D., whose zeal, patriotism, keen sense of the need for this history, and unselfish efforts prompted them to monitor and assist in the writing of the history of the three major theaters of operations. I would be remiss in not mentioning the late Col. Stephen C. Sitter, MC, who was unable to complete the chapter "American Prisoners of War Held by the Japanese" because of his untimely death. I know that the writing of this chapter recalled many painful repressed memories for him and Charles J. Katz, M.D., who completed the chapter. Both were prisoners of war.

Finally, my appreciation is extended to the distinguished members of the Advisory Editorial Board on the History of Neuropsychiatry, who not only assisted admirably in the guidance of this project but who also

authored, edited, and assisted others in the development and writing of many contributions.

HAL B. JENNINGS, Jr., M.D.,
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Preface

The first of the two volumes on the history of neuropsychiatry in World War II dealt mainly with the developmental, administrative, and clinical problems of neuropsychiatry in the Zone of Interior. This second volume considers the problems and their solutions associated with prevention, treatment, and disposition of neuropsychiatric casualties in the overseas theaters and in the Army Air Forces. It also discusses similarities and differences encountered in these efforts in remote geographic areas and widely dispersed theaters of operations, and includes chapters on prisoners of war.

The section on the Mediterranean theater develops, more or less chronologically, the history of the areas in which neuropsychiatric facilities were most active, from early experiences in North Africa through the conquest of Sicily and Italy. In most instances, the key authors composed their final manuscripts after a roundtable review, with contributions from the other team members.

The history of the European theater, which utilized the experiences of the Mediterranean theater with necessary modifications and novel additions, follows a more developmental pattern at different echelons, in a chronological order. Although the several armies and airborne divisions in Europe had much in common, many subtle differences must be recorded.

The islands of the vast Pacific comprised a number of areas which changed as the war progressed. Variations according to a specific area and time sequence required that the history be developed on a separate area basis.

The neuropsychiatric experiences and problems of the less active theaters are told in individual chapters.

The Army Air Forces history is divided into an overall general history, a discussion of the general problems of the flier, and a more specific Pacific Area history with its own unique problems.

A special section is devoted to American prisoners of war held by the Japanese and by the Germans and Italians.

Although there may have been other military psychiatric concepts and other possible solutions to neuropsychiatry problems, it must be remembered that this is a history of neuropsychiatry in World War II in which a fairly representative cross section of the psychiatrists who held positions of leadership record their experiences. It is hoped that the reader, especially the psychiatrist who served in World War II and who has developed professionally since that conflict, will judge this history in that light.

In the preparation of this volume, contributions were solicited from hundreds of men who served in neuropsychiatric capacities during the

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war. Many responded with old records, reprints of articles, personal letters, and anecdotes. Their cooperation is sincerely appreciated by the Advisory Editorial Board on the History of Neuropsychiatry, the authors, and the editor. Some of this material was used and attribution made; some had to be reluctantly laid aside. Obviously, all could not be mentioned in the text, although one chapter in the Pacific history, "As We Remember It," was constructed around many of these contributions, and more than 100 persons are either quoted or mentioned therein.

Similar to the first volume, this second volume is a product of many authors. It should be recognized that, in a multi-authored volume, there is inevitable repetition and some overlapping, as each writer, a participant in World War II, found it necessary to establish an appropriate background from which to relate the historical events of his particular sphere of endeavor. The removal of all duplication would have nullified the continuity of many chapters which are individual accounts of psychiatric activities in a particular geographic area. The authors had unique experiences, and it was agreed that they be given considerable freedom to set forth their viewpoint but, at the same time, to assume responsibility for their work. In some instances, however, brief editorial comments have pointed out inconsistencies and contradictions. This history is not designed to settle issues but to present events as perceived by participants and to permit readers to draw their own conclusions.

It is recorded in this volume that more than 2 years of World War II had elapsed before combat psychiatry in the U.S. Army achieved the effective levels of operation which had been developed by the American Expeditionary Forces of World War I. These circumstances, and other failures to learn from the psychiatric experiences of past wars, prompted the inclusion, in each of the two volumes of this history, of a final chapter summarizing the lessons learned. In this second volume, the summary chapter is devoted to the lessons learned by U.S. Army psychiatry in the various combat and other overseas wartime theaters.

The editor wishes to express his grateful appreciation to Col. William S. Mullins, MSC, Director and Editor in Chief, The Historical Unit, U.S. Army Medical Department, who continued in the manner of his predecessor, Col. Robert S. Anderson, MC, USA (Ret.), to guide this project and provide enthusiastic encouragement and advice when needed.

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Part I

MEDITERRANEAN (FORMERLY NORTH AFRICAN) THEATER OF OPERATIONS, U.S. ARMY

CHAPTER I

Introduction

Lieutenant Colonel Calvin S. Drayer, MC, AUS (Ret.), and
Colonel Albert J. Glass, MC, USA (Ret.)

On 8 November 1942, approximately 11 months after war had been declared between the United States and the Axis nations, United States and British troops landed in North Africa in the first stage of an attack upon what British Prime Minister Winston S. Churchill was to call "the soft underbelly of the Axis." Thus, it was in the Mediterranean theater, where the U.S. Army sustained its first large-scale battle actions in World War II, that the principles and practices of combat psychiatry, as followed in World War I, were rediscovered and further developed.

In the early North African operations, organized psychiatric effort was nonexistent. During the later phases of the Tunisia Campaign, beginning in March 1943, the psychiatric program was initiated. Thereafter, continued progress was made in its further elaboration.

In retrospect, there is no doubt that the impetus and success of psychiatry in the Mediterranean theater can be traced to the efforts of a single individual, Capt. (later Lt. Col.) Frederick R. Hanson, MC (fig. 1).[1] Although Captain Hanson was more trained in neurology than in psychiatry, he quickly grasped the relevant aspects of combat psychiatry and moved with persistence and energy to make responsible authorities aware of the problem. By personally placing himself in difficult combat situations, he impressed both line and medical superiors with his realistic understanding of battle-induced psychiatric casualties and the need for their early and active treatment.

As in World War I, psychiatry in the Mediterranean theater finally evolved as a three-echelon system: a first echelon, forward or division psychiatry, supported by a second echelon of special psychiatric facilities at field army level, and lastly, a third echelon of base hospital services for severe or unimproved psychiatric evacuees from the combat zones and for psychiatric problems arising in the rear areas. The three levels of psychiatric treatment evolved in an irregular fashion over a considerable time period.

For purposes of clarity, the Mediterranean theater section of the history has been arranged to give a chronological account of this development. This chapter will deal with the early phases of the theater psychiatric pro-

[1] Deceased, 4 July 1964.

FIGURE 1.—Lt. Col. Frederick R. Hanson, MC, when Consultant in Neuropsychiatry, Mediterranean (formerly North African) Theater of Operations, U.S. Army.

gram, involving the North African and Sicilian campaigns during which the third or base level of psychiatric care was established. The second chapter records the history of psychiatry of the Fifth U.S. Army in the Italian campaign and the establishment of the second echelon of psychiatric care at the field army level. The third chapter takes up the later emergence of the forward echelon of combat psychiatry at the division level. To complete the section, additional chapters are included to describe specialized problems and techniques for their treatment which were developed by psychiatric facilities at field army and base hospital levels.

NORTH AFRICAN INVASION (8 NOVEMBER 1942)

There was awareness in some quarters that psychiatric casualties would occur in combat and that planning for their care was necessary. As the buildup of U.S. Army forces began in England in 1942, leading American civilian psychiatrists supported a plan to form a "medical cabinet" of specialist consultants to advise the Commanding General, ETOUSA (European Theater of Operations, U.S. Army). It was probably late in June, or early in July, 1942, that these psychiatrists suggested Maj. (later Col.) Lloyd J. Thompson, MC, then on duty at Walter Reed Army Hospital, Washington, D. C., for the post of consulting psychiatrist in the European theater. Late in July, Major Thompson was notified of this selection by the Chief, Military Personnel Division, SGO (Surgeon General's Office), and, in keeping with this new position, was promoted to the grade of lieutenant colonel on 6 August 1942. Colonel Thompson's orders for duty overseas were dated 12 August 1942.[2]

Concurrently, certain medical officers of the U.S. Army in Northern Ireland and England were concerned about the psychiatric problems in future combat. Out of their thinking eventually evolved the psychiatric programs of the Mediterranean theater. A key individual in this group was Captain Hanson, a native of the United States, who had been working in Montreal, Canada, in neurosurgery with Dr. Wilder Penfield, before the United States entered the war. Dr. Hanson joined the Canadian Army, went with it to England in March 1940, and while on duty in England became interested in the emotional reactions to combat. In May 1942, he transferred to the U.S. Army at the request of Brig. Gen. (later Maj. Gen.) Paul R. Hawley, Chief Surgeon, ETOUSA.[3] Through his friends in the Canadian Army and in the British Eighth Army in North Africa, Captain Hanson learned of combat experiences such as those at Tobruk, Libya. After his transfer to the U.S. Army, he obtained a brief leave and personally accompanied the Canadians on the disastrous Dieppe raid in August 1942, to observe the stress of actual combat.

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[2] Personal letter, Dr. Lloyd J. Thompson to C. S. Drayer, 1 July 1967.

[3] Letter, Frederick R. Hanson to Col. Roy D. Halloran, 28 June 1943.

On 10 August 1942, Captain Hanson sent a letter to General Hawley in which he cited the need for a much better organized and equipped, and more extensive neuropsychiatric service in the European theater. This letter so impressed General Hawley that he "used it as the basis for requesting [from The Surgeon General] a full time neuropsychiatric consultant of suitable high caliber to organize and operate such a program as proposed by then Captain Hanson."[4] General Hawley's request was dated 15 August 1942. It would thus appear that he was unaware that Colonel Thompson had already been ordered overseas, on 12 August 1942, to serve as the ETOUSA consultant in neuropsychiatry.

Although top-level decision to launch the North African invasion (Operation TORCH) had been reached in July 1942, neither Colonel Thompson's appointment by the Surgeon General's Office nor Captain Hanson's recommendations were initially related specifically to this campaign. Indeed, neither the Director, Neuropsychiatry Branch, nor the Chief, Professional Service Division, both of the Surgeon General's Office, was informed officially that an invasion of North Africa was even being contemplated.[5]

On 5 September 1942, one of the authors (C. S. D.), a Board-certified psychiatrist, and other officer, a Board-certified orthopedist, were assigned to Headquarters, I Armored Corps. Shortly thereafter, I Armored Corps was designated as the Western Task Force, and sailed from the United States, under convoy of the U.S. Navy, to participate in the invasion of North Africa by attacking Atlantic coast areas in French Morocco.[6]

When I Armored Corps was designated as the Western Task Force, both the young, Board-certified specialists were told they would serve overseas as assistants to a more senior practitioner of their respective

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[4] Medical Department, United States Army, Internal Medicine in World War II, Volume I. Activities of Medical Consultants. Washington: U.S. Government Printing Office, 1961, p. 392.

[5] (1) Personal letter, Dr. Malcolm J. Farrell to C. S. Drayer, 8 Aug. 1962: "* * * I went to the Office of the Surgeon General in April of 1942 * * * Colonel [Roy D.] Halloran [MC] arrived in August of 1942. Shortly after he came on duty, we were requested to submit a name for an N.P. [neuropsychiatric] consultant to General Hawley [Maj. Gen. Paul R. Hawley, Chief Surgeon, European Theater of Operations, U.S. Army]. Colonel Lloyd Thompson was selected. At no time were we consulted or made aware of the plans for the North African invasion. As far as I know this was entirely a Ground Force matter." (2) Personal letter, Brig. Gen. Charles C. Hillman, MC, USA (Ret.), formerly Chief, Professional Service Division, Office of the Surgeon General, to C. S. Drayer, 21 Aug. 1962: "Though there was great secrecy in the SGO about the scheduled invasion of North Africa, I did know about it. But it was only on a 'hush hush' basis and all that I knew was information that unintentionally spilled over from the Planning and Training Division which had to do with plans for overseas operations. However, I was well acquainted with the Senior Medical Officer assigned to that Task Force and, without going into details, I have a very strong impression that little thought was given and no special plans made for the handling of psychiatric cases that might be expected to occur in the combat zone * * * I think that none of us had any appreciation of the magnitude of psychiatric problems that would occur in the combat zone. I must acknowledge that early in the war I was to a great extent influenced by our longtime practice in the peacetime Army of thinking in terms of schizophrenia and major depressions whom we discharged on C.D.D. [certificate of disability for discharge] and sent to governmental institutions as soon as they could be placed therein * * * I think that none of us realized the great number of acute anxiety states and other acute conditions that would need immediate psychiatric help in the combat zone until after the invasion of North Africa."

[6] Wiltse, Charles M.: The Medical Department: Medical Service in the Mediterranean and Minor Theaters. United States Army in World War II. The Technical Services. Washington: U.S. Government Printing Office, 1965, p. 105.

specialties, who would be assigned later. Neither officer, however, was given any inkling of the Western Task Force's objective until they were aboard the D–5 convoy at sea on the way to French Morocco. They, therefore, had no opportunity to participate in the medical planning for the invasion. (Western Task Force was commanded by Maj. Gen. (later Gen.) George S. Patton, Jr. In the light of subsequent events, it is perhaps not surprising that Captain (later Lieutenant Colonel) Drayer's only assigned duties were to inspect latrines at Camp A. P. Hill, Va., and to ride medical supply trucks as an armed guard after arrival in Casablanca.)

In the European theater, by August 1942, some of the task forces necessary for the invasion of North Africa had already been marshaled in Northern Ireland. At the Northern Ireland Base Section, a closely knit, relatively independent command, Captain Hanson was serving as consultant in neuropsychiatry to the U.S. Army forces and as part-time consultant to the British forces. Here, he had coordinated neuropsychiatric services, had established outpatient and consultation services for extramural psychiatric problems, and was maintaining close liaison with ground forces in the screening, assignment, and classification of personnel in combat units and replacement centers.[7]

The reasons why Captain Hanson and his coordinated program were not included in the North African invasion forces are not clear from official documents. In October 1942, Colonel Thompson had urged Col. John F. Corby, MC, surgeon for the U.S. invasion forces, to take along a consultant in neuropsychiatry. However, Colonel Corby had said that if the need for a psychiatric consultant developed, he hoped one could be provided. That one, it was generally agreed, would be Captain Hanson, because of his previous experience.[8]

Later, some confusion resulted from Captain Hanson's selection as psychiatric consultant. After NATOUSA (North African Theater of Operations, U.S. Army) was established, the Surgeon General's Office, interested in assigning a consultant in neuropsychiatry for that theater, sent Maj. (later Lt. Col.) Roy R. Grinker, MC, to Oran, Algeria, instead of to England where Major Grinker had originally planned to set up a center for the treatment of Eighth Air Force personnel. When he arrived in Algeria, Major Grinker found that a man thus far unknown to the Surgeon General's Office had already been chosen overseas for the consultant post.[9] Thereupon, he requested a transfer to the Twelfth Air Force,[10] where he became psychiatric consultant and made the considerable professional contribution described elsewhere.[11]

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[7] Medical Department, United States Army. Internal Medicine in World War II. Volume I. Activities of Medical Consultants, p. 320.

[8] Ibid., p. 344.

[9] Verbal communication, Dr. Lauren H. Smith to C. S. Drayer.

[10] Personal letter, Dr. Roy R. Grinker to C. S. Drayer, 2 June 1967.

[11] See pages 16–17; also part V, "The Army Air Forces."

On 20 November 1942, 12 days after the landings in North Africa, the services of Lt. Col. (later Col.) Perrin H. Long, MC (then Scientific Liaison Officer, Office of the Chief Surgeon, ETOUSA), were requested as consultant in medicine for the American branch of the Medical Section, AFHQ (Allied Force Headquarters). After some delay, Colonel Long arrived in Algeria on 3 January 1943.[12] Before Colonel Long's departure from England, however, he conferred with Captain Hanson and General Hawley regarding neuropsychiatric problems which might be expected in North Africa. Captain Hanson received the impression at this conference that provisions for coordinated psychiatric services had been omitted from the North African invasion plans for logistic reasons (chiefly shortages of shipping space).[13] Whatever the impression, there was honest doubt at high levels concerning the actual value of psychiatric services in combat areas. For example. Brig. Gen. Charles C. Hillman, Chief, Professional Service Division, SGO, who generally supported the development of adequate psychiatric services, on 26 January 1943, replied to General Hawley's request for authorization to appoint division psychiatrists, as follows: "* * * From contact with members of the Royal Army Medical Corps, it is my opinion that some of them feel that psychiatry in British theaters of operation is being overemphasized."[14]

TUNISIA CAMPAIGN

Early Developments

Except for several days of moderately intense fighting at Oran, the invasion forces met little opposition. In the three landings (on the beaches in the vicinity of Casablanca on the Moroccan coast and on the beaches of Oran and Algiers on the Algerian coast), battle casualties and, consequently, psychiatric casualties were few (map 1). However, as U.S. troops consolidated their positions in Algeria and as II Corps moved eastward into Tunisia, the incidence of psychiatric cases rose.

Facilities and personnel for the care of these psychiatric casualties were meager, comprising only those neuropsychiatric sections and services of station and general hospitals which were assigned to the theater. Because of this shortage, many American psychiatric casualties were sent to the special psychiatric unit attached to the British 95th General Hospital at Algiers.

By 11 February 1943, the accumulation of American psychiatric casualties in the British 95th General Hospital was sufficiently great to neces-

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[12] Long, Perrin H.: Mediterranean (Formerly North African) Theater of Operations. *In* Medical Department, United States Army. Internal Medicine in World War II. Volume I. Activities of Medical Consultants. Washington: U.S. Government Printing Office, 1961, pp. 149–150.

[13] Verbal communication to C. S. Drayer by Dr. Frederick R. Hanson.

[14] Letter, Brig. Gen. C. C. Hillman, Chief, Professional Services, SGO, to Brig. Gen Paul R. Hawley, Chief Surgeon, European Theater of Operations, U.S. Army, 26 Jan. 1943, subject: Psychiatrists in Combat Units.

MAP 1.—North African Theater of Operations, 1944.

sitate the appointment there of a special disposition board composed of Major Grinker, Capt. (later Maj.) John M. Usow, MC, and Maj. C. Kenton, Royal Army Medical Corps.[15]

While at the British 95th General Hospital, Major Grinker observed British psychiatrists using Sodium Pentothal (thiopental sodium) to induce abreaction. From this experience, he began his studies on narcosynthesis.

During the first month after Colonel Long reported for duty as medical consultant, the need for a consultant in neuropsychiatry to assist him became apparent. A cablegram requesting such an assistant was received in the European theater on 21 January 1943. General Hawley selected Captain Hanson for this assignment. For some odd reason, the cablegram read: "Select competent psychiatrist for assignment to ABS."[16] ABS was Atlantic Base Section, French Morocco. Captain Hanson succeeded in reporting to MBS (Mediterranean Base Section, at Oran), but there was a delay of some days before this administrative snarl was untangled so that he could join Colonel Long in Algiers. In the interim, Captain Hanson worked with Maj. Louis L. Tureen, MC, Chief, Neuropsychiatric Service, 21st General Hospital (an affiliated unit of Washington University School of Medicine, St. Louis, Mo.), at Sidi Bou Hanifia near Oran.

The early and adverse phase of the Tunisia Campaign (Battles of Faid Pass and Kasserine Pass, 14–23 February 1943) produced a flood of psychiatric casualties. During this period, from 20 to 34 percent of all nonfatal battle casualties were psychiatric, but only 3 percent of psychiatric casualties were returned to combat duty.[17]

Psychiatric casualties were evacuated hundreds of miles to Algeria, to the rear hospitals in Constantine, Algiers, and Oran; and even as far back as Casablanca, in French Morocco. When these casualties were treated far from the battle area, many presented a changing and, not infrequently, bizarre clinical picture, which included dramatic syndromes of terror states with mutism, dissociative behavior, marked tremulousness and startle reaction, partial or complete amnesia, severe battle dreams, and even hallucinatory phenomena.[18] Such severe reactions are characteristically observed in the early campaigns of a war when new units are involved in heavy combat before group values for behavior, group cohesiveness, and

[15] U.S. Army Special Orders No. 6, 11 Feb. 1943. (This order presumably originated at Headquarters, NATOUSA. Reference is made to it in a document (in possession of C. S. Drayer) entitled "Methods of Disposal of Psychiatric Cases in the North African Theater of War," from the Psychiatric Unit, 95th General Hospital, B.N.A.F. [British North African Force]. This document is dated 14 June 1943 and is for the signature of C. Kenton, Major, R.A.M.C. Special psychiatrist, 95th General Hospital. This composition of the Board differs from that reported by Perrin H. Long, M.D., who stated this board consisted of "2 British and 1 American Medical officers." *In* Medical Department, United States Army. Internal Medicine in World War II. Volume I. Activities of Medical Consultants. Washington: U.S. Government Printing Office, 1961, pp. 162–163.)

[16] Medical Department, United States Army, Internal Medicine in World War II. Volmue I. Activities of Medical Consultants, p. 344.

[17] Wiltse, *op. cit.*, pp. 144–145.

[18] For a vivid and remarkably lucid description of psychiatric casualties during this period, *see* Grinker, Roy R., and Spiegel, John P.: War Neuroses in North Africa: The Tunisian Campaign (January May 1943). New York: Josiah Macy, Jr. Foundation, 1943.

other sustaining forces have been established, particularly when the psychiatric casualties have been evacuated far from combat in time and space. This early experience in combat psychiatry provided the first opportunity to rediscover a phenomenon that was described by Allied medical services in World War I: that the farther psychiatric casualties are evacuated and the longer they are hospitalized, the more fixed their symptoms and the more difficult their treatment and recovery for even noncombat overseas duty.

On 12 February 1943, Colonel Long went forward into the combat areas. There, he observed, "more gross hysterical and conversion manifestations were developing than were ever noted before." [19] On 21 February 1943, Colonel Long submitted a report to the Surgeon, NATOUSA, which placed emphasis upon the mounting numbers of psychiatric casualties produced when new and untrained troops were placed into battle for the first time.[20]

Treatment initiated.—As an outgrowth of Colonel Long's report, Captain Hanson and Major Tureen were attached to II Corps, in late March 1943. Using brief periods of sedation and rest along with techniques of suggestion and ventilation, they demonstrated that 30 percent of acute psychiatric casualties could be returned to combat duty within 30 hours from a forward treatment area—in this instance, a corps clearing station near the Maknassy front.[21] In a more enthusiastic vein, therefore, Colonel Long reported: "Thus the policy was initiated of treating neuropsychiatric casualties as far forward as possible. The wisdom of this policy was demonstrated during the battles of Maknassy and El Guettar * * *, in the course of which Captain Hanson returned more than 70 percent of 494 neuropsychiatric casualties to combat after 48 hours of treatment, and Major Tureen rapidly rehabilitated the majority of the remainder for duty in the base section." [22]

"Exhaustion."—At the beginning of the final battle for Tunisia (23 April–9 May 1943), Colonel Long held a conference with the psychiatrists in II Corps. After the conference, the Commanding General, II Corps, Maj. Gen. (later General of the Army) Omar N. Bradley, issued a directive on 26 April 1943, which established a holding period of 7 days for psychiatric patients at the 9th Evacuation Hospital (where Major Tureen was attached), and for the first time, the term "exhaustion" was prescribed as the initial diagnosis for all combat psychiatric cases.[23] ("All psychiatric or psychogenic disturbances will be diagnosed as exhaustion in the battalion and collecting or clearing stations. The definitive diagnosis will be made in the evacuation hospitals.") According to Colonel Long: "Of the possible

[19] Long, *op. cit.*, p. 163.
[20] *Ibid.*
[21] Wiltse, *op. cit.*, p. 145.
[22] Long, *op. cit.*, p. 165.
[23] Long, *op. cit.*, p. 167.

diagnostic terms discussed, this word was chosen because it was thought to convey the least implication of neuropsychiatric disturbance and it came closest to describing the way the patients really felt." [24]

The directive also for the first time ordered that all psychiatric patients insofar as possible be kept under sedation from battalion aid station to evacuation hospital. Specific sedation therapy recommended at aid stations included the barbiturates, Sodium Amytal (amobarbital sodium), phenobarbital, or Nembutal (pentobarbital sodium), with subsequent doses to keep patients drowsy; the use of morphine or codeine was banned.

Final Battles for Tunisia

During this last phase of the Tunisian fighting, Captain Hanson was instrumental in placing psychiatrists at evacuation hospitals in forward areas receiving psychiatric casualties previously sedated at divisional medical facilities. Results were said to have been more than 50 percent returned to combat.[25] As this stage of the campaign resulted in victory and a cessation of fighting in early May 1943, it is, however, difficult to determine the validity of such return-to-duty results.

Organizational Development

Consultant in neuropsychiatry appointed.—After the surrender of the German forces in Tunisia, Colonel Long reported:

* * * during the Tunisian Campaign, Captain Hanson made a brilliant record in the return of neuropsychiatric patients to combat duty and in the organization of the psychiatric facilities in the II Corps. Because of this, the consultant in medicine recommended to the Surgeon, NATOUSA, that Captain Hanson be designated as consultant in neuropsychiatry for the North African theater. This suggestion was carried out by

[24] There is no question that the term "exhaustion," later changed to "combat exhaustion" and "combat fatigue," both of which became household phrases in World War II, originated as set forth by Colonel Long. However, no doubt unknown to the originators, this terminology was not without precedent and perhaps was a logical development of prior usage. In World War II, exhaustion and fatigue (the more chronic phase of exhaustion) were considered important predisposing circumstances in the war neuroses which tended "to weaken the individual and to prepare the way for the reception of the final traumatic incident." (*See* The Medical Department of the United States Army in the World War. Neuropsychiatry. Washington: U.S. Government Printing Office, 1929, vol. X, p. 373.) Indeed, on page 392, in this World War I neuropsychiatry history, "exhaustion" appears as a subcategory or precursor to the war neuroses, with the statement: "They [patients] represented a large percentage of the material seen in the triages and considerable number of those seen in the advanced hospitals. In the earlier months of fighting they were often mistaken for and designated as war neuroses." Also in the older psychiatric nomenclature, "exhaustion psychoses" is listed as an organic mental disorder produced by prolonged strenuous activity usually associated with sleep deprivation.

Armstrong in his well-known book on aviation medicine, published in 1939, used the term "pilot fatigue" which he regarded as a "diminished will to work" that was, at least in part, due to emotional causes. Moreover, in Armstrong's volume, "chronic fatigue" and "fatigue" are set forth with other terms as synonyms for aeroneurosis—a chronic functional nervous disorder arising in professional aviators. (*See* Armstrong, Harry G.: Principles and Practices of Aviation Medicine. Baltimore: Williams and Wilkins Co., 1939, pp. 450–453.)—A. J. G.

[25] Wiltse, *op. cit.*, p. 145.

the Surgeon early in June 1943, and subsequently the consultant in medicine acted solely in an advisory capacity insofar as neuropsychiatric problems were concerned.[26]

Theater directives.—With the appointment of Captain Hanson as consultant in neuropsychiatry, a definitive theaterwide psychiatric program finally became possible. On 12 June 1943, Circular Letter No. 17, "Neuropsychiatric Treatment in the Combat Zone," was issued by the Office of the Surgeon, Headquarters, NATOUSA. This directive was introduced by the statement:

> The problem of neuropsychiatric disabilities under modern battle conditions has been a serious one. Approximately 20 percent of all nonfatal casualties are psychiatric in origin. Trial under actual field conditions in the Tunisian campaign has shown that 60 percent of the total NP [neuropsychiatric] casualties can be returned to effective combat duty within 3 or 4 days if they are treated within the Combat Zone. The accomplishment of these results required cooperation between divisional medical officers, personnel of the medical battalions, and the psychiatrists of the 400-bed evacuation hospitals. It is for the purpose of outlining this procedure that the present instructions are issued, and only by strict compliance with these precepts can such coordination be obtained.

The instructions which followed were simple and took into account that almost all medical officers in the forward areas had yet had little or no training or experience in the diagnosis and handling of emotional disturbances. Hence, the only diagnosis permitted was "exhaustion," in line with the policy established by General Bradley's directive in II Corps on 26 April 1943. Also, as in that directive, great dependence on rather heavy sedation with Sodium Amytal was still advocated.

On 15 June 1943, Brig. Gen. Frederick A. Blesse, Surgeon, NATOUSA, followed up Circular Letter No. 17 with instructions addressed specifically to all evacuation hospitals, subject: "Neuropsychiatric Treatment in Evacuation Hospitals," as follows:

> The policy of maintaining an atmosphere of discipline and rest should be rigidly adhered to and every effort made to minimize the "hospital" aspects of the treatment.
>
> Every effort should be made by the 400-bed Evacuation Hospital psychiatrist to maintain personal contact with the forward area medical personnel. By this means, specific problems may be settled promptly and follow up of cases returned to duty made easier.

Report forms established.—A handicap in designing an adequate neuropsychiatric program had been the lack of data in the problems involved, which could be submitted to some degree of statistical analysis. Major Hanson grappled with this defect soon after his assignment as theater consultant in neuropsychiatry.

Several reporting forms were developed.[27] Forms Nos. 1, 2, and 3

[26] Long, *op. cit.*, p. 170.

[27] Letter(s), Office of the Surgeon, Headquarters, NATOUSA, to Commanding Officers, All Hospitals, date and subject as follows: (1) 17 June 1943, subject: N.P. Reports—Forms No. 1 and No. 2; (2) 1 July 1943, subject: Recurrent N.P. Cases—Form No. 3; (3) 30 Aug. 1943, subject: Instructions on N.P. Reports—Change of Report Period; (4) 25 Sept. 1943, Reports on Medico-Legal N.P. Cases—Form No. 5; (5) 10

gave a basis for evaluating the flow of combat and noncombat neuropsychiatric patients as categories in the hospital population of the theater. Later, division reports provided data on correlation between neuropsychiatric casualties, wounded in action, and type of tactical organizational activity in each battalion of each regiment on a day-by-day basis.

Forms 4a and 4b were designed to provide detailed information on the background, symptoms, treatment, and response in all individual neuropsychiatric cases in the theater. Recording of this information was so organized that much of it could be utilized for punchcard analysis after the war. Copies of all these thousands of individual reports were kept by the theater consultant in neuropsychiatry until the end of the war. Unfortunately, the significance of the vast amount of material will never be known. Shipped back to the Surgeon General's Office after the end of the war, this material was destroyed shortly thereafter for "lack of storage space." [28]

SICILY CAMPAIGN (10 JULY–18 AUGUST 1943)

As in the North African invasion, operations in the Sicily Campaign were carried out by an Allied force designated the 15th Army Group. Its components were Lt. Gen. (later Field Marshal) Sir Bernard L. Montgomery's British Eighth Army, reinforced by the 1st Canadian Division; and the Seventh U.S. Army, commanded by General Patton.

Tactical Situation

On 10 July 1943, the Seventh U.S. Army, which included the 1st, 3d, and 9th Infantry Divisions, the 2d Armored Division, the 45th Infantry Division fresh from the United States, and attached Ranger battalions, stormed the southeastern coast of Sicily at three separate points, supported by elements of the 82d Airborne Division, which had been dropped inland a few hours ahead of the beach attacks. Similar landings were made simultaneously by the British Eighth Army at coastal points to the east of the Seventh U.S. Army assault. Furious fighting continued for 38 days, with slow and then at times rapid advances by the Allied forces as the Germans fought a desperate and generally successful delaying action, which permitted the withdrawal of their main forces across the Strait of Messina to the Italian peninsula. Casualties of all types were heavy. For the first several days, patients were transported directly from the beaches to ports

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Nov. 1943, subject: Sample Form No. 4; (6) 15 Nov. 1943, subject: Preparation of N.P. Reports (Forms No. 1, No. 2, and No. 3); (7) 21 Feb. 1944, subject: Change in Form No. 1; (8) 21 Mar. 1944, subject: Revision of Form No. 3; (9) 15 Apr. 1944, subject: N.P. Report Form Nos. 4a and 4b; (10) 29 June 1944, subject: Preparation and Submission of N.P. Reports (covers all forms); and (11) 15 Dec. 1944, subject: Division Neuropsychiatric Report.

[28] Personal verbal communication, Dr. Frederick R. Hanson to C. S. Drayer.

in Tunisia and Algeria by returning troop carriers and LST's (landing ship, tank). Between 10 July and 20 August, more than 11,000 casualties were evacuated by sea and air to North Africa.[29]

Evacuation Hospital Psychiatry

A psychiatrist to provide forward psychiatric treatment was assigned to each of the 400-bed evacuation hospitals directly supporting the combat elements; this implemented the plan which had been developed in the final phase of the Tunisian action. In the early stages of the fighting in Sicily, however, because of rapid movement and heavy casualties, most psychiatric casualties were evacuated to North Africa from divisional clearing stations, bypassing the evacuation hospitals and thus receiving no forward treatment except sedation. As a result, only 15 percent were returned to duty by medical facilities in Sicily. Later, after battle conditions had stabilized, approximately 50 percent of psychiatric cases were returned to duty by the evacuation hospitals. The total of duty returns for "exhaustion" cases in the Sicily Campaign was 39 percent.[30]

In general, the Sicilian experience, later confirmed in the early phases of the Italian campaign, demonstrated that evacuation hospital psychiatry in combat is ineffective. Under active battle conditions, when psychiatric casualties are high as are battle casualties, evacuation hospitals are preoccupied with the care of acute surgical and medical cases. At such times, therefore, evacuation hospitals are not suitable for the holding and treatment of psychiatric patients. Also at these installations, the presence of sick and injured casualties, most of whom are in the process of being moved farther rearward to safe base hospitals, exerts a powerful negative influence upon the usually wavering, fearful psychiatric patients.

Base Hospital Psychiatry

Soon after the onset of the Sicily Campaign in July 1943, Major Hanson recommended that the 43d Station Hospital, near Bizerte, Tunisia, function as an all-psychiatric hospital. The hospital opened on 19 July 1943. Thus began the establishment of the rear level of what was to become a three-echelon system of special psychiatric treatment facilities, patterned after the psychiatric organization of the American Expeditionary Forces in World War I. Although nominally only a 250-bed unit, the 43d Station Hospital was rapidly expanded to a 500-bed psychiatric inpatient facility by the influx of psychiatric evacuees from Sicily. Initially, nine psychiatrists were transferred to the 43d from various station and general hospitals then in the North African theater. Capt. (later Lt. Col.) Lawrence P.

[29] Wiltse, *op. cit.*, p. 167.

[30] Wiltse, *op. cit.*, pp. 171–172.

Roberts, MC, the psychiatrist originally with the 43d Station Hospital was selected to head the new enlarged psychiatric service. The early tribulations of this unit deserve a place in history: [31]

* * * * * * *

* * * A thirteen day voyage, uneventful, brought the unit to Oran, Algeria, North Africa, on 11 May 1943. Unit debarked and was put in staging area 2–D near Fleures * * *.

Sanitary conditions in the area were deplorable. The rocky nature of the soil made digging of latrine pits impossible without dynamite and drills; one 8-seat latrine provided for some 1,400 men. The combined action of the commanding officers of staged units finally succeeded in bettering conditions. Dysentery swept through the command; there were no deaths, however. Water was very scarce and closely rationed, one canteen full per day per man which under the circumstances was entirely inadequate. [This situation at "Goat Hill" is illustrated by figure 2, which is based on a sketch by Colonel Drayer after he had been placed on temporary duty with the 43d Station Hospital on 3 July 1943.]

* * * Doctors and nurses were not allowed to be placed on temporary duty by the Surgeon, MBS, but medical officers were used by the Commanding General, MBS, as * * * Military Police * * * patrolling streets of Oran. Administrative control of the unit during this period was very confused. The unit was assigned to EBS [Eastern Base Section] and attached to MBS, when I Armored Corps Reinforced [shortly to become the Seventh U.S. Army] steps in and claims control but no written orders to back claims were evidenced.

* * * On 8 July 1943 orders were received to move unit by rail and organic motor transportation to Mateur, Tunisia.

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FIGURE 2.—"Goat Hill" bivouac, 43d Station Hospital, east of Oran, Algeria, 6 July 1943. [From sketch by C. S. Drayer.]

[31] Annual Report, 43d Station Hospital, 1 Jan. 1944.

A 250-bed Station Hospital was set up in tents and patients received in three and one half days after personnel arrived. Opening date 19 July 1943.

Lt. Col. Perrin Long, Medical Consultant, NATOUSA, advised that this unit was to function as a Neuro-Psychiatric Hospital exclusively and psychiatrists were attached to the unit. We were neither trained nor equipped for such work and had no warning of the allotted task, but with the help of Colonel Long and Major Frederick Hanson, Neuro-Psychiatric Consultant for NATOUSA, the unit began to function as a Neuro-Psychiatric Hospital. The Hospital setup evolved in the course of the first 60 days to a unit of 500 beds, accepting Neuro-Psychiatric cases only. The Psychiatric staff of assigned and attached officers varying from 7 to 14 * * *.

Clinical states.—The clinical picture of psychiatric casualties received at the 43d Station Hospital was distinctly less severe than that described for psychiatric evacuees in the Tunisia Campaign. Only one new and untried division, the 45th Infantry, had been committed in the Sicilian fighting. The other units had experienced varying degrees of combat in North Africa. Also, psychiatric casualties were hospitalized sooner than in the Tunisian action, usually arriving at the 43d Station Hospital within 24 to 48 hours after entering medical channels.

Here, although most patients exhibited tension, tremor, and mild to moderate startle reaction to sudden noise or combat-type sounds, they did not present dissociated, confused, or disorganized behavior. They were able to give a coherent story of their combat experiences with relatively little tremulousness, retarded speech, or memory impairment. They were irritable, complained of battle nightmares and somatic discomfort, including increased sweating, headache, and gastrointestinal upset, and persistently verbalized their inability to "take it" and return to combat. Indeed, only 3 percent could be salvaged for combat duty at this level. Evacuation across even only 90 miles of water from Sicily to Bizerte in North Africa, but actually and symbolically out of the battle zone, seemed to be the crucial issue in causing fixation of symptoms and in negating any motivation to rejoin the combat unit.

In most instances, however, return to noncombat duty was readily accomplished. Perhaps the guilt feelings and overidentification of psychiatrists, stationed in a safe rear area with no experience in the differentiation between normal and abnormal battle reactions, had much to do with ready acquiescence with the psychiatric evacuee that he was unable to function in combat. Certain it was that psychiatrists' later opinions and decisions as to the future combat adjustment of psychiatric casualties became more and more optimistic as they were permitted to move forward and work in the combat zone.

Sedation.—In June 1943, a continuous sedation program was established for the treatment of acute psychiatric casualties.[32] Psychiatric evacuees were usually given 6 grains of Sodium Amytal at the battalion

[32] Circular Letter No. 17, Office of the Surgeon, Headquarters, North African Theater of Operations, U.S. Army, 12 June 1943, subject: Neuropsychiatric Treatment in the Combat Zone.

aid station, which medication was repeated or reinforced as patients were moved rearward through collecting station, clearing station, evacuation hospital, and receiving base hospital, in an effort to make possible 2 to 4 days of sleep and rest. As stated, the sedation program had been previously implemented by Major Hanson during the last phase of the Tunisian action. It was designed to insure the relief of physical fatigue while isolating or preventing the individual from being further traumatized by battle anxiety or preoccupation with thoughts and memories of battle events.

There was much discussion, at least among the psychiatric staff of the 43d Station Hospital, as to the rationale and effectiveness of the continuous sedation method. Some, particularly Major Hanson, argued that physical exhaustion was the major factor in precipitating combat psychiatric breakdown. Others, pointing out that many psychiatric cases occurred early or even before participation in combat—before physical fatigue could have existed—believed that exhaustion played only a minor role. This subject continued to be much debated and discussed until the end of the war.

Later experience in the combat zone demonstrated that neuropsychiatric cases with obvious physical exhaustion usually were rapidly improved by 1 to 2 days of sleep and rest. These individuals usually required little sedation; the opportunity to sleep in a safe and comfortable facility sufficed. What value then continuous sedation? Apparently no particular benefit was obtained by postponing for several days the release of anxiety or the working through of problems associated with traumatic battle events. Continuous sedation seemed to extend the period of hospitalization and to accentuate attitudes of dependency and helplessness, with a consequent loss of confidence relative to return to combat hazards and hardships. When division psychiatry was established, sedation was utilized but only when required to aid the fresh psychiatric casualty in obtaining 24 hours of sleep and rest.

Pentothal abreaction.—Colonel Grinker, who visited the 43d Station Hospital for a 10-day period in July 1943, and Capt. (later Maj.) John P. Spiegel, MC, who was assigned to the same hospital for several months, stimulated much interest and work with the use of Pentothal for interview and abreaction. Unquestionably, Pentothal abreaction, or what seemed to be a chemically induced hypnosis, achieved good therapeutic results in severe cases by alleviating marked "free floating" anxiety, by overcoming amnesia, and by reconstituting apparent dissociated behavior. However, these individuals could not be returned to combat duty. Even during the dramatic scenes in which the psychiatrist played the role of buddy, squad leader, "medic," platoon sergeant, or company commander, and all concerned, spectators and players alike, believed themselves to be involved in a gripping drama, the patient insisted that he be assured of not being returned to combat duty. This assurance was readily granted by the emotionally involved noncombat psychiatrist who, by this time,

had developed strong feelings of compassion and identification with his patient. Indeed, the major question was whether the patient could remain overseas at all and function in a noncombat position.

Also, many patients were resistant to suggestion that they relive combat experiences and merely told their stories with relatively little emotion. Even in these instances, a definite decrease of anxiety seemed to occur after Pentothal interview. Colonel Grinker then postulated that the abreaction obtained by the use of Pentothal was different from that which was induced by hypnosis because of a specific action of barbiturates on the diencephalic structures. He argued that perhaps all psychiatric casualties would benefit by Pentothal interview with abreaction of traumatic events if possible. However, such a procedure required from 1½ to 3 hours, for it was necessary to effect a positive relationship with the patient, induce abreaction when possible, discuss past and present experiences, and repeat much of the material as the influence of the barbiturate waned, so as to consolidate the gains in insight made under sedation. From a purely logistic standpoint, this method could not possibly be used on a routine basis and was employed mainly in so-called severe cases.

The use of Pentothal became widespread and the drug well known. It received the dubious distinction of being called "truth serum." Occasionally, psychiatrists were requested to administer the "truth serum" to AWOL (absent without leave) soldiers who claimed complete amnesia, or at least amnesia for the period of their absence. Such individuals presented a characteristic picture of bland perplexity as they demonstrated the "billfold syndrome." Here, in some instances, the soldier tried to prove, with wallet in hand or "little black book," that, although he possessed identification and other papers which established his identity and gave evidence that he had a family or a wife, he was completely unable to recall these significant persons in his life, or indeed know who he was. In other cases, he was aware of his identity, but could not remember having been sent overseas or being inducted into the military service. Merely upon seeing Pentothal being prepared for injection or upon having the needle inserted into the vein, with little or no introduction of the drug, the offender not infrequently had a rapid recovery of memory—such was the magic of truth serum.

In occasional individuals, however, Pentothal completely failed to remove the defense of amnesia. These individuals resolutely went to sleep, volunteering little information, or they maintained sufficient amnesia to cover the period of delinquent behavior. Later, while working in Italy, Capt. (later Maj.) Alfred O. Ludwig, MC, came to the belief that such a negative result was indicative of malingering as distinguished from hysteria in which the amnesia could be removed by Pentothal.[33]

[33] Ludwig, Alfred O.: Malingering in Combat Soldiers. Bull. U.S. Army M. Dept. (supp.) 9: 26–32, November 1949.

Concussion.—Captain Drayer and Capt. (later Col.) Albert J. Glass, MC, at the 43d Station Hospital, collaborated on a study to ascertain the effects of blast in producing psychiatric casualties. Patients who gave a history of nearby shell explosion and had undoubted evidence of being exposed to blast, as manifested by hemorrhage or rupture of an eardrum, were compared with those who had no such history of proximity to shell explosion, and showed no physical effects of blast. Spinal fluid examination and chest X-ray were routinely taken with uniformly negative findings. The results indicated that the two groups of patients were indistinguishable, having mainly subjective symptoms of irritability, headache, tremor, battle dreams, startle reaction, and a phobia of further combat.

Essentially, this study only repeated previous well-known observations of World War I and reassured the authors that cases labeled "concussion" because of associated hemorrhage or rupture of an eardrum were identical with so-called "exhaustion." Excluded from these findings were the relatively few individuals with brain concussion or contusion who had been propelled some distance by blast with the head striking the ground, or by flying debris striking the head. In the main, therefore, individuals complaining of the effects of shell explosion were far more likely to have experienced psychic trauma than brain damage.

"Everyone has his breaking point."—"Exhaustion" became more and more commonly used and accepted as the proper diagnosis for neuropsychiatric casualties. Indeed, the theater directive, Circular Letter No. 17,[34] prescribed that no other diagnosis would be employed for psychiatric casualties in the combat zone. It was rather extraordinary that this general nonspecific nosology met with such approval. With this simple change of nomenclature, psychiatric casualties, and also psychiatrists, became almost "respectable."

"Exhaustion" somehow made sense, for almost all concerned could understand and identify with the weary, emotional struggle of maintaining adjustment under difficult combat circumstances. Few line or medical officers confused "exhaustion" with physical fatigue. Only some psychiatrists were critical about the appropriateness of such a general diagnosis which was foreign to psychiatric nomenclature and appeared to have little psychological meaning.

With the widespread usage of "exhaustion," a quantitative and sensible approach to the etiology of psychiatric breakdown developed as a logical consequence, manifested by the commonly accepted statement that "everyone has his breaking point." This generality was believed to be true by all, even psychiatrists. That most cases of exhaustion occurred early in a combat career was explained on the basis of greater individual vulnerability. Patients aided and abetted this viewpoint by obligingly giving appropriate background data, such as excessive timidity, "never had a fight in my life,"

[34] See footnote 32, p. 15.

inability to fire their weapons, fainting at the sight of blood, and other lifelong characteristics of passivity and inability to externalize aggression. Thus, it was reasonable for them to reach their breaking point earlier than others.

Indeed, not a few psychiatrists at this time, including the authors, were dismayed by the high prevalence of severe passivity in young American manhood. Later, it was recognized that the psychiatric casualty could not be explained by such a simple stress-predisposition formula. It was learned that the failure under combat conditions of group cohesive forces, including leadership, or the inability to obtain or utilize such sustaining influences, was more important in the etiology of psychiatric breakdown. Other pertinent factors in this complex adaptation problem were physiological impairment due to intercurrent illness or physical fatigue; the extent of previous military training; the quantity and quality of available weapons and supply; the weather; and other environmental considerations.

Results.—By the end of the Sicily Campaign, the 43d Station Hospital had been in operation as a special psychiatric facility for one month (19 July–18 August 1943). Major Hanson recalled Captain Drayer, one of the original psychiatrists attached to the 43d Station Hospital, to theater headquarters in Algiers for a review of the situation. In a formal report on 24 August 1943, which involved 890 admissions, Captain Drayer summarized as follows: [35]

3. *Discussion.*—Although it is much too early to evaluate this experience completely, there are certain advantages which seem rather definitely to have been gained by placing a psychiatric hospital immediately behind the evacuation hospitals in the chain of evacuation from the front.

a. *Early Segregation.*—Patients with primary emotional disorders were completely separated in five days or less after their breakdown from the group with predominantly physical injury or disease. They no longer had to feel stigmatized because they were returning from combat without an actual wound and each case could realize that his experience had been neither unique or reprehensible.

b. *Early Treatment.*—The favorable cases were helped to face frankly the psychogenic reactive nature of their symptoms. They no longer needed to search for justifying physical bases for their illnesses, and were led rapidly to a realization that their disability did not need to be permanent. Amnesias and major hysterical manifestations were treated intensively before they had become fixed, and the underlying anxiety was often brought to the surface where it was handled appropriately by a staff fully aware of the patient's problems and dangers at a critical period in his recovery.

c. *Early Disposition.*—Responsive cases were usually out of the hospital in two weeks or less after they had broken down in combat. The temporary nature of their reaction was thus emphasized and they were saved from the traumatizing experience of stewing in their own doubt about themselves inherent in the former system when these cases were often evacuated further to the rear in the company of more seriously disabled troops. Although most of them could not face a return to actual combat, it was common for them to request assignments in Africa so that they would not have to be returned

[35] Letter, Capt. Calvin S. Drayer, MC, Office of the Surgeon, Headquarters, NATOUSA, to Psychiatric Consultant, Office of the Surgeon, NATOUSA, 24 Aug. 1943, subject: Psychiatric Casualties at 43d Station Hospital.

to the United States before the end of the War. Their ultimate success in adjustment cannot be estimated this early, but it is interesting during the month, only ten cases [out of 189] had to be rehospitalized from the replacement center to which they had been sent. Of these ten, two cases were able to go out again to the center in less than a week.

The report concluded with a discussion of limitations which were encountered. The major difficulty was in finding sufficient proper noncombat assignments for discharged psychiatric patients. This became an increasing problem which was never resolved in the Mediterranean theater.[36]

Another handicap was the location of the 43d Station Hospital, as part of a row of tent hospitals near Bizerte over which German bombers flew at night on their way to attack shipping in the nearby harbor. Recent psychiatric casualties, who had improved, relapsed rapidly into severe anxiety states when they found themselves again in proximity to a combat situation. During these nights, with low enemy bombing runs over hospital row, and the sounds and flashes of furious antiaircraft fire, even though the hospitals were not the enemy target, many patients ran pellmell toward nearby hills, seeking safety. Others exhibited marked anxiety manifestations by diving under beds and clawing the ground. Most of those who fled the hospital returned after cessation of enemy air activity, but some did not return until the daylight hours.

Later Developments

The success of the 43d Station Hospital in the Sicily Campaign led Major Hanson to recommend the establishment of a second all-psychiatric unit—the 500-bed 51st Station Hospital—which became operational near Oran, on 28 September 1943. Major Tureen, who had had experience in the treatment of casualties in both the Tunisia and Sicily Campaigns, was chosen to head the psychiatric services. On 16 November 1943, the special function of the 43d Station Hospital (250 beds) was shifted to the larger 114th Station Hospital (500 beds) which remained an all-psychiatric facility until the end of the war.[37] Major Roberts continued to be the professional chief of the psychiatric services. A more detailed account of the clinical experiences of these two psychiatric units, the 43d Station Hospital (later the 114th Station Hospital) and the 51st Station Hospital, is contained in a chapter of this history specifically devoted to base hospital psychiatry in the Mediterranean theater.

Other Base Hospital Facilities

As in the Tunisia Campaign, psychiatric casualties from Sicily were also received and cared for by the psychiatric facilities of station and

[36] Less than a decade later, during the Korean War when I was theater consultant in neuropsychiatry, we were much more successful in handling this problem.—A. J. G.

[37] Medical Memorandum No. 13, Office of the Surgeon, Headquarters, Eastern Base Section, 15 Nov. 1943 (confirmed by Sec. IV, NATOUSA Circular No. 220, 11 Nov. 1943).

general hospitals situated at various locations in North Africa. Among the more active of these psychiatric services and their psychiatrists were the 29th Station Hospital, in Algiers, with Captain Usow; the 7th Station Hospital, in Oran, with Capt. (later Maj.) Oswald V. Todd, MC; the 12th General Hospital, at Aïn et Turk just east of Oran, with Maj. (later Lt. Col.) Benjamin Boshes, MC, and Capt. (later Maj.) Stephen W. Ranson, MC; the 21st General Hospital, at Sidi Bou Hanifia, with Major Tureen; the 6th General Hospital with Maj. Merrill O. Parker, MC, and Captain Ludwig; and the 3d General Hospital at Mateur, near Bizerte, with Capt. (later Maj.) Edwin A. Weinstein, MC.

In the later development of the psychiatric organization in the Mediterranean theater, station hospitals mainly provided psychiatric consultative and treatment services for personnel of nearby noncombat logistic units. In contrast, general hospitals, because of being housed in more permanent facilities and possessing more elaborate equipment and larger and more experienced professional staffs, received the more difficult neurological and psychiatric diagnostic and treatment problems from the special psychiatric hospitals and station hospitals. Several of these general hospitals developed electroencephalography, pneumoencephalography, and other special diagnostic neurological techniques; they also used electroshock treatment and furnished closed-ward facilities for the most persistent and severe psychiatric disorders. Because of their unique contributions and clinical experiences, general hospitals are discussed in a section specifically devoted to them in the chapter on the base level of neuropsychiatry in the Mediterranean theater.

Patton Incident

Perhaps the most discussed psychiatric event of the Mediterranean theater occurred on 10 August 1943, when General Patton, commanding the Seventh U.S. Army, slapped a psychiatric evacuee in the receiving tent of the 93d Evacuation Hospital at San Stefano, Sicily. A similar incident had occurred on 3 August, in which General Patton had cursed and struck with his gloves a patient with a clearing station diagnosis of "psychoneuroses anxiety state—moderate severe." Although this particular incident caused no serious repercussions, the 10 August incident received widespread publicity, and Patton apologized to all concerned.[38] Of greater importance, however, than explanations for Patton's actions in these cases was the demonstration of an attitude which was shared by many responsible senior line and medical officers: that psychiatric casualties represented cowardice or poor motivation or weakness of character. This belief persisted despite available evidence that prolonged or intense exposure to

[38] Garland, Albert N., and Smyth, Howard McGaw: Sicily and the Surrender of Italy. The Mediterranean Theater of Operations. United States Army in World War II. Washington: U.S. Government Printing Office, 1965, pp. 426–431.

battle danger could produce temporary emotional disability in so-called normal individuals. This unfavorable attitude interfered with adequate planning for forward and prompt treatment of combat psychiatric casualties.

The Patton incident focused widespread attention upon the causes of emotional problems in combat, and aided in establishing their legitimacy. Although no immediate changes in policy followed the Patton incident, it subsequently appeared that increased consideration was being given to psychiatric casualties, as indicated by the inclusion of psychiatric planning for the Italian invasion (see ch. II). When, finally, psychiatric casualties were regarded as a legitimate consequence of battle stress and strain, it became possible to prepare adequately for their prevention and treatment.

Summary

On 14 October 1943, the Surgeon,[39] NATOUSA, responded to a request (dated 20 August 1943)[40] from the Consultant in Neuropsychiatry, SGO, for a report on the psychiatric experiences of the Sicily Campaign. This report, undoubtedly written initially by Major Hanson, included the following comments:

2. * * * The overall return to combat duty for the campaign was 39 percent of total NP casualties, and neuropsychiatric disabilities furnished 14.9 percent of the total nonfatal battle casualties. This confirms not only the rates of occurrence in Tunisia, but also the efficacy of treatment methods developed there. Perhaps the most interesting fact noted was that of unselected cases reaching the NP center in North Africa, within 24 hours of being invalided, less than 3 percent could be returned to combat duty. This appears to establish the necessity of dispersion of psychiatrists into the evacuation hospitals since it is impractical if not impossible to move the NP center farther forward than the first general confluence of patients returned from the evacuation hospitals.

3. The Sicilian campaign also exploded the idea that the rates of occurrence of psychiatric disabilities are lessened among experienced troops. In the two "veteran" divisions used, 66 percent and 88 percent respectively of the NP cases were among veterans of the Tunisian campaign who had not been previously hospitalized for NP disabilities, and when allowance is made for the percentage of replacements in these divisions, it is apparent the rate of occurrence is actually higher among seasoned troops than among unseasoned. When individual histories are studied, some of the reasons for this become apparent. It is now nearly established that these disorders may occur among men who have normal past emotional stability and that the rigors of modern combat cause disabling emotional disorders not only among those predisposed but among normal individuals as well. It is our opinion that anyone, no matter how normal, will "crack" with sufficient exposure to these unfavorable conditions. While this will occasion no surprise to anyone with psychiatric training, it is not an acceptable thesis to the line officer. We hope before long to give convincing statistical evidence for these statements.

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[39] Letter, Brig. Gen. F. A. Blesse, Surgeon, NATOUSA, to The Surgeon General, U.S. Army, Washington 25, D.C. (Attn: Consultant Psychiatrist), 14 Oct. 1943, subject: Neuropsychiatric Report.

[40] Letter, Col. R. D. Halloran, MC, Office of the Surgeon General, to Capt. Frederick R. Hanson, MC, Consultant Psychiatrist, Office of the Surgeon, Headquarters, NATOUSA, APO 534, 20 Aug. 1943.

4. Two neuropsychiatric centers have been established in North Africa, one in the Bizerte area and one in the Oran area, at the two main reception ports for casualties. The object of these centers is short term therapy for cases of the limited service (not fit for combat) type and to prevent the multiple hospitalization of each case formerly practiced. One of these centers functioned with excellent results during the Sicilian campaign and the other is just beginning to function. There is no intention to treat psychotics or longer term psychoneurotic cases at these installations and such cases are transferred to the general hospitals for treatment. The special hospitals have a limited function in that they are not intended to return cases to combat duty except in minor numbers. They are also ideal places for investigation of various clinical phenomena and to cast light on possible etiological factors.

CONCLUSION

As a result of these experiences in the Tunisia and Sicily Campaigns, concepts and operations of combat psychiatry had reached the following level of sophistication:

1. The importance of situational forces or pressures in the causation of combat psychiatric breakdown had become clearly recognized.

2. The effectiveness of early, forward treatment for psychiatric casualties, established in World War I, had been reaffirmed.

3. The development of third or rear echelon special psychiatric treatment facilities had been accomplished, but it was evident that more forward or combat levels of psychiatric treatment were required if efficient return to combat duty rates was to be obtained.

The further development of combat psychiatry is considered in chapter II, which continues the story of chronological development of combat psychiatry in the Mediterranean theater and records the establishment of special psychiatric facilities at the second or field army level during the early phases of the Italian campaign.

CHAPTER II

Italian Campaign (9 September 1943–1 March 1944), Psychiatry Established at Army Level

Lieutenant Colonel Calvin S. Drayer, MC, AUS (Ret.), and
Colonel Albert J. Glass, MC, USA (Ret.)

GENERAL CONSIDERATIONS

Fifth U.S. Army under the command of Lt. Gen. (later Gen.) Mark W. Clark was activated on 5 January 1943, at Oujda, French Morocco. After 6 months of training, its mission was still unspecified, although alternative plans had been prepared for operations against Sardinia and for landings in southern Italy.

On 26 July 1943, the day after the fall of Mussolini, top-level authority (the Combined Chiefs of Staff) authorized the Fifth Army invasion of the Naples area (Operation AVALANCHE). The successful bombing of Rome on 19 July and the rapid progress made in the Sicily Campaign were factors in favoring the plan for landings on the Italian mainland. The site for landing was narrowed to Salerno, and the target date was fixed as 9 September 1943.[1]

The purpose of the Italian campaign was not to strike a decisive blow at Germany through the back door, but rather to tie down as many enemy troops as possible and to acquire additional airbases for attacks against German production and communications. In effect, the campaign was designed to become a giant holding operation.

As in the Sicily Campaign, the invading force in Italy was to be the 15th Army Group under the command of British General (later Field Marshal) Sir Harold R. L. G. Alexander, with the Fifth U.S. Army [2] replacing the Seventh U.S. Army. Lt. Gen. (later Field Marshal) Sir Bernard L. Montgomery's British Eighth Army was to cross the Strait of Messina and move up the Italian boot to seize the important Foggia airbase on the Adriatic side of the peninsula. General Clark's Fifth Army was to expand northward from the Salerno landings to occupy Naples.[3]

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[1] Wiltse, Charles M.: The Medical Department: Medical Service in the Mediterranean and Minor Theaters. United States Army in World War II. The Technical Services. Washington: U.S. Government Printing Office, 1965, pp. 222–223.

[2] It should be noted that Fifth U.S. Army at times included other than U.S. elements, such as British units, New Zealand troops, Free French troops, and later a Brazilian Army Force. Except for the Brazilian Force, however, medical services in these other elements remained relatively independent. Hence, their ways of handling psychiatric casualties are not reviewed.

[3] Wiltse, *op. cit.*, pp. 222–223.

PREINVASION PSYCHIATRIC PLANNING

In the beginning, the large load of uncertain medical planning had to be carried by only five officers (the Fifth U.S. Army surgeon, Brig. Gen. Frederick A. Blesse; a veterinarian; two Sanitary Corps officers; and a Medical Administrative Corps officer), a warrant officer, and 11 enlisted men. Necessarily, primary attention was devoted initially to the preparation of training memorandums, to the establishment of supply routine and sanitation procedures, and to the rendition of reports, returns, and records. During the early months of 1943, no plans or policies were established for the prevention and treatment of psychiatric casualties.

In April 1943, General Blesse became Surgeon, NATOUSA (North African Theater of Operations, U.S. Army), and Col. (later Maj. Gen.) Joseph I. Martin, MC, became Surgeon, Fifth U.S. Army. Although Colonel Martin later firmly supported a combat psychiatric program, during this planning period he was either unaware of, or not impressed with, the importance of such an effort. Perhaps Colonel Martin was unfamiliar with the pioneering work of Hanson and Tureen in combat psychiatry, which was in progress at this time during the Tunisian fighting (p. 9). Moreover, in these early phases of World War II, objections to forward psychiatric treatment were being raised in some quarters (p. 10). For example, senior officers of the 9th Evacuation Hospital vigorously criticized the holding policy for psychiatric casualties, which had been imposed upon this unit during the final phase of the Tunisia Campaign by II Corps.[4] Also, according to Lt. Col. (later Col.) Perrin H. Long, MC,[5] consultant in medicine for the North African theater, Colonel Martin and other senior medical officers were inclined, initially, to regard theater specialty medical consultants more as "inspectors" from a higher headquarters than as potential sources of help in planning and operating good professional services.

Despite the attitudes just stated, on 21 August 1943, a psychiatric policy was officially adopted in the Fifth U.S. Army with the issuance of a directive, from the Office of the Surgeon, entitled "Neuropsychiatric Procedures." A series of events immediately preceding the issuance of this directive may have had much to do with its origin.

On 5 August 1943, Lt. Gen. (later Gen.) George S. Patton, Jr., the Seventh U.S. Army commander in Sicily, issued a memorandum in which men claimed to be "nervously incapable of combat" were branded as "cowards." [6] On 10 August 1943, General Patton acted out his resentment of such casualties by slapping a hospitalized patient who, he understood,

[4] The II Corps directive, issued on 26 April 1943, established a 7-day holding period for psychiatric patients at the 9th Evacuation Hospital.

[5] Long, Perrin H.: A Historical Report Upon the Activities of the Consultant in Medicine of the North African and Mediterranean Theaters of Operation, From 3 January 1943 to 9 August 1945, p. 7. [Official record.]

[6] Memorandum, Lt. Gen. G. S. Patton, Jr., U.S. Army, Commanding, Headquarters, Seventh U.S. Army, for Corps, Division, and Separate Brigade Commanders, 5 Aug. 1943.

belonged to this group. On 22 August 1943, General Patton made a public apology to all concerned in this incident.

Direct correlation of these events with the establishment of a psychiatric policy in Fifth U.S. Army cannot be established from official records. The time sequence, however, does suggest a relationship. Patton's impulsive protests against psychiatric patients may well have alerted the Commanding General or the Surgeon, Fifth U.S. Army, to the need for a definite psychiatric policy in the medical plan for the invasion of Italy. It can be argued that the psychiatric directive of the Fifth U.S. Army required some time for its preparation. But much of the material contained therein was taken from existing NATOUSA circulars and directives on theater psychiatric policy, and the Patton slapping episode of 10 August was known to responsible medical and line authorities before the public apology on 22 August.[7] However, it must be admitted that the Fifth U.S. Army psychiatric directive did, at least, represent a rising awareness of the importance of psychiatric combat breakdown as a result of experiences of the Tunisia and Sicily Campaigns.

Psychiatric policy.—Significant as the issuance of the directive "Neuropsychiatric Procedures" must be considered, the following complications and limitations conspired to make its implementation relatively ineffective during the first weeks of the Italian campaign:

1. *Time.*—Less than 3 weeks elapsed from the time the directive was issued until the invasion of Italy by the Fifth U.S. Army. Although the basic principles of combat psychiatry are relatively simple, resistance to their adoption was high among most line and medical officers. A significant reduction of this resistance could hardly have been accomplished in so short a time, especially in competition with other burdens and obligations which had to be assumed by all responsible officers on the threshold of a major amphibious invasion. During this period, as outstanding an officer as the VI Corps commander, Maj. Gen. (later Lt. Gen.) Lucian K. Truscott, Jr.,[8] still distrusted the ability of medical officers to distinguish between emotional disability in combat and malingering, to such a degree that, by his order, every psychiatric casualty in his 3d Infantry Division had to be interviewed by his Judge Advocate to detect malingering more certainly.[9]

[7] Furthermore, Lt. Col. Frank R. Drake, MC, who, in 1943, was Assistant Surgeon, Headquarters, Fifth U.S. Army, subsequently stated the following in a personal letter to the author (Drayer), on 18 November 1958: "* * * I can recall clearly about the first psychiatric directive which was written for the 5th Army. When I was in North Africa in the vicinity of Algiers on the Planning board for the Salerno invasion, I personally spent several days digging up all the material on combat psychiatry on which I could lay my hands and wrote out a recommended outline for the diagnosis and therapy of combat psychiatric casualties. I had no help whatsoever from anyone on this project and cannot recall if the memorandum was even actually published. Col. Clement St. John was Chief of the Operations section of General Martin's staff at that time, and he is the one who asked me to write the memorandum. I can recall being quite irritated as he expected me to finish that particular job in one afternoon and I did not feel qualified in the slightest to have anything to do with it * * *."

[8] Assumed command of Fifth U.S. Army on 16 December 1943.

[9] Personal communication to the author (C. S. D.), *See also* p. 96.

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Such honest skepticism could hardly have been offset quickly by a single directive from the Office of the Surgeon, Fifth U.S. Army.

2. *Ambiguity.*—The directive was based, almost entirely, on excerpts from Circular Letter No. 4 and Circular Letter No. 17.[10] While it thus reflected rather well, in spirit, the concept of early therapy as near the combat area as possible, it was based (as Circular Letter No. 17 had been) on the assumption that unspecialized battalion and division medical officers could make the difficult distinction between "psychoneurosis" (instability previously manifested in civilian life) and "milder cases of neurosis."

Unlike Circular Letter No. 17, the 21 August 1943 directive then stated bluntly: "Psychoneurotics will be evacuated as promptly as possible through normal medical channels." Studies have shown that many effective personnel, including wounded, may give a past history of instability similar to that given by men truly disabled by emotional disability. Furthermore, some soldiers with unpromising civilian backgrounds had inner resources which enabled them to make magnificent contributions to the combat effort. Hence, the validity of the previous background as the basis for differentiation in diagnosis was highly questionable. Furthermore, the admonition to evacuate "psychoneurotics" promptly opened the door for premature disposition of patients on the basis of their history alone without regard to their current emotional status or their actual potentiality for early return to combat or other active duty. This ambiguity might have been less serious if division surgeons had had psychiatrists on their staffs, but it was not until 9 November 1943 that the War Department finally reestablished the position of psychiatrist in the table of organization for infantry divisions.[11]

3. *Integration with medical planning.*—The neuropsychiatric directive was not well integrated in the total medical plan for the Fifth U.S. Army, which appeared only 4 days later, on 25 August 1943.[12]

a. Specific reference to the neuropsychiatric directive is made in section V, 7c of the medical plan. Unfortunately, the whole spirit of the neuropsychiatric directive is somewhat undermined by an earlier, almost Patton-like, statement in section V, 5: *"Stragglers and Malingerers.*—Those apprehended at medical installations will be turned over immediately to the unit Provost Marshal or his counterpart * * *."

b. According to the neuropsychiatric directive, the last line of psychiatric defense in the Army area was to be the evacuation hospitals (where the only available psychiatrists were stationed). Unfortunately, the neuropsychiatric directive also stated (par. 3b(3)): "All neuropsychiatric cases unlikely to return to duty within the current evacuation policy should be immediately evacuated under sedation. Under normal combat conditions

[10] (1) Circular Letter No. 4, Office of the Surgeon, Headquarters, NATOUSA, 22 Mar. 1943, "Psychotic and Neurotic Patients, Their Management and Disposition." (2) Circular Letter No. 17, Office of the Surgeon, Headquarters, NATOUSA, 12 June 1943, "Neuropsychiatric Treatment in the Combat Zone."

[11] War Department Circular No. 290, 9 Nov. 1943, "Appointment of Division Psychiatrist."

[12] Medical History of the Fifth Army for the Year 1943, Appendix A thereto, "Medical Plan and Directive for Operation AVALANCHE." [Official record.]

no case will be retained in the hospital more than *four* days." (II Corps had imposed a 7-day holding policy for neuropsychiatric patients at the 9th Evacuation Hospital in Tunisia.) In the medical plan, of which the neuropsychiatric directive became a part, "current evacuation policy" was defined very simply (sec. III, 1a): "Transportable casualties * * * will be loaded * * * for evacuation to destinations afloat * * *."

In all fairness to the planners of this drastic evacuation policy, no solid data were available on which to base an accurate estimate of the surgical load which would be imposed upon evacuation hospitals during the initial days of the beachhead establishment. Furthermore, saving the lives of seriously wounded casualties does demand priority over efforts to treat nonfatal medical disease and emotional disorders. By D+8, however, it was recognized that the wounded rate was less and the cases of disease were "far in excess of the number anticipated." [13] On D+12, battle casualties were still fewer and "disease was increasing rapidly." Yet evacuation from the beachhead was apparently being continued vigorously. On D+12, the 16th, 93d, and 95th Evacuation Hospitals had succeeded in setting up 1,644 beds; for these hospitals only 858 hospitalized patients were recorded on that day.[14]

SALERNO TO NAPLES (9 SEPTEMBER–1 OCTOBER 1943)

Tactical Events

Several hours before the Salerno landings on the early morning of 9 September 1943, the surrender of Italy was announced over the radio to the world by Gen. (later General of the Army) Dwight D. Eisenhower.[15] This event, however, in no way lessened the hazard of the operation. Allied assault forces, including two British infantry divisions, Commando troops, American Ranger units, and two regimental combat teams of the U.S. 36th Infantry Division, met stiff opposition by veteran German troops supported by tanks and heavy guns on the beaches south of Salerno. Two regimental combat teams of the U.S. 45th Infantry Division were added to the assault forces on D+1 and D+2. A massive German counterattack on 13 September was finally halted with the aid of Allied naval gunfire and planes. About this time, the 504th Regiment of the 82d Airborne Division was dropped behind the enemy lines.

With the British Eighth Army closing in from the south, the Germans withdrew slowly as the beachhead forces were reinforced by the U.S. 3d and 34th Infantry Divisions and a British armored division. By 20 September, the beachhead was secure. The advance on Naples continued to be delayed by mountainous terrain and stubborn enemy rearguard actions from

[13] Medical History of the Fifth Army, 1943, p. 11.
[14] *Ibid.*, p. 12.
[15] Wiltse, *op. cit.*, pp. 226–232.

prepared positions (map 2). On 1 October, Allied forces of Fifth Army occupied Naples, and the British Eighth Army captured the vital airfields around Foggia.

Medical Support

Initially, casualties from the Salerno fighting were heavy. They were evacuated directly from the beachhead to transports of all types, including LST's (landing ship, tank), and moved to fixed hospitals in North Africa. After several days, hospital ships were also employed, followed by air evacuation, as beachhead positions were secured.

Psychiatric Casualties

No clear-cut, psychiatric program was ever developed on the Salerno beachhead or during the advance on Naples. A psychiatrist was assigned to each of the several evacuation hospitals, but their endeavors were not coordinated into an overall organized program. Moreover, the psychiatrist was often handicapped by having his patients scattered in various wards, so that it was difficult to organize a distinct psychiatric service even within each hospital.

Under these somewhat disorganized circumstances, the actual incidence of disabling anxiety was difficult to estimate. In the 3 weeks of combat before 1 October 1943, when Naples fell, 443 psychiatric patients were recorded, less than 1 per 8 battle casualties.[16] This proportion was out of line with later experience in the Italian and other campaigns in which a ratio of 1 psychiatric casualty to every 4 or 5 battle casualties was recorded. One can only suspect that psychiatric cases were evacuated under other diagnoses. For example, the frequency of diarrhea in the Fifth U.S. Army increased by almost one-third during the last week in September 1943. "Most patients recovered promptly after three to five days regardless of whether sulfonamides or bismuth or paregoric were used." [17]

Such possible somatization of combat anxiety came to be well recognized, particularly by Maj. (later Lt. Col.) James A. Halsted, MC, during the latter months of 1944 (p. 82). This supposition was further substantiated by observations that the early psychiatric evacuees from the Italian beachhead, upon arrival directly at base hospitals in North Africa after bypassing the evacuation hospitals on the Salerno beachhead, had frequently been diagnosed as "concussion" or other somatic disease. These cases were not recorded as psychiatric casualties by the Fifth U.S. Army, as the initial psychiatric diagnoses were not made until after the evacuees had reached the base sections in North Africa.

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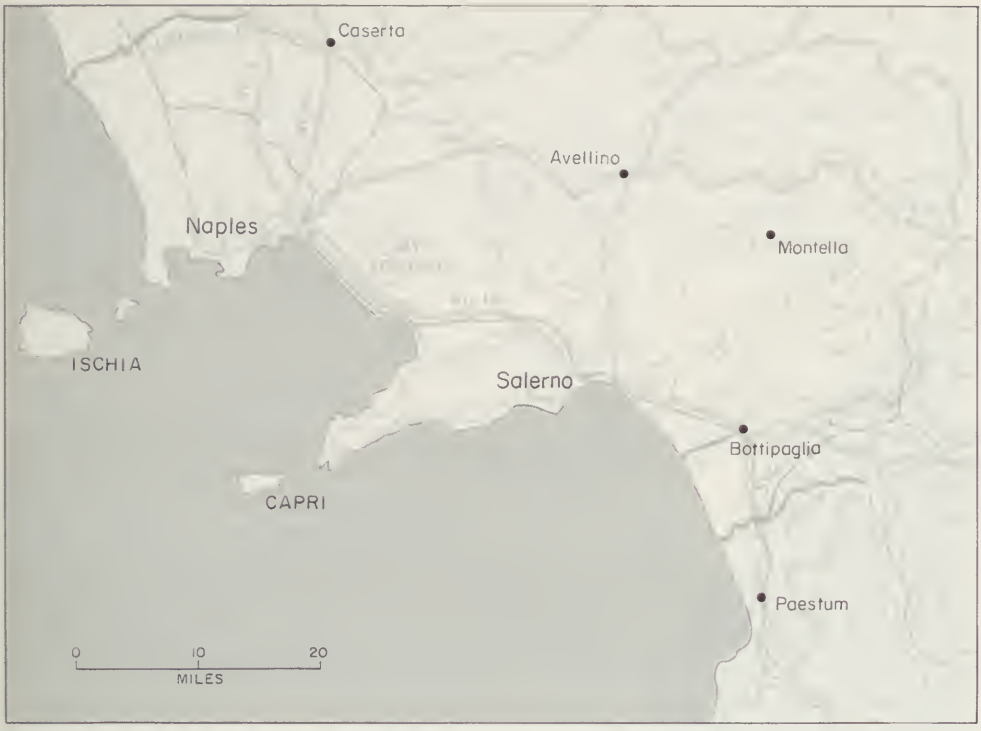
[16] History, Fifth Army Medical Service, 1945, p. 155. [Official record.]
[17] Medical History of the Fifth Army, 1943, p. 38.



MAP 2.—Salerno-Naples, 9 October 1943.

The clinical picture presented by psychiatric evacuees who arrived in North Africa was much like that noted in the Sicily Campaign. Most cases were of the "mild type," who promptly improved in the noncombat environment of North Africa but who were overtly resistant toward return to combat duty.

ACROSS THE VOLTURNO TO THE WINTER LINE

Tactical Events

On 6 October 1943, forward elements of the Fifth U.S. Army reached the Volturno River, north of Naples. Fifth U.S. Army then paused long enough to bring up artillery and necessary equipment to replace blasted bridges. After several crossings of the winding Volturno, the Fifth U.S. Army began to make steady but slow advances against stubborn river and mountain enemy defenses which were aided by rain and muddy terrain. By 15 November, the Fifth U.S. Army had reached another German defensive system, the Winter Line (map 3). Since 6 October, strongly fortified river defenses had been breached and gains made from 17 miles along the coast on the left to 45 miles on the right flank of the front. The new

MAP 3.—Naples northward, 15 November 1943.

line extended along the south bank of the Garigliano River to a junction with the British Eighth Army west of Isernia and included the towns of Mignano and Venafro. The mountains had become steadily more precipitous and the weather progressively worse. A halt was called for regrouping.[18]

Medical Support

Problems of medical evacuations increased coincident with the difficulties of river crossings and mountain fighting.[19] Mines, boobytraps, and snipers swelled the casualty rate. Each new advance required determined fighting in the face of enemy fire from dominating slopes. Men suffered increasingly from exposure to rain, cold, and mud, and the strain became

[18] Wiltse, *op. cit.*, pp. 232–235.
[19] *Ibid.*, pp. 235–237.

apparent in rising rates of psychiatric casualties. Aid stations were brought up to 300–500 yards from the fighting, as littering casualties down mountain trails took from four to six men per patient. Mountain caves were used often as aid stations because of protection from the elements and enemy shelling. Evacuation hospitals were moved into the combat zone as rapidly as suitable sites became available to shorten ambulance runs. Field hospital platoons reinforced by teams from the 2d Auxiliary Surgical Group were moved in with division clearing stations to render surgical care for the severe nontransportable wounded.

Psychiatric Casualties

As more Fifth U.S. Army medical units were brought north of Naples, a more effective triage of the sick and wounded became possible. More accurate diagnoses of emotional disorders began to be made, and in isolated instances, adequate psychiatric treatment was provided similar to that which had been developed in the latter phases of the North African campaign. An example of such a treatment program occurred at the 8th Evacuation Hospital, which was opened near Caserta in October 1943. Capt. (later Lt. Col.) Calvin S. Drayer, MC, the attached psychiatrist, was given every possible assistance by the professional and administrative services of the hospital. During November 1943, Captain Drayer, working with an internist, returned from 55 to 60 percent of psychiatric casualties to combat duty, as had been possible during the last phase of the Tunisia Campaign.

However, lack of coordination of psychiatric services in the Fifth U.S. Army continued. Single psychiatrists were still assigned only to evacuation hospitals, and it continued to be difficult for them to exchange information for the development of a consistent program. No one psychiatrist was in position to assume even a minimum leadership role. Contacts between psychiatrists of the evacuation hospitals and division medical services were fragmentary. Contact between evacuation hospitals and the Office of the Surgeon, Headquarters, Fifth U.S. Army, was largely limited to statistical reports.

During November 1943, total returns to duty of neuropsychiatric casualties by Fifth U.S. Army facilities reached a new low of 17.9 percent. Thus, 82.1 percent psychiatric cases originating in the Fifth U.S. Army were evacuated out of the Army area to rear or base hospitals. It is interesting to note that, as a result of improved organization of psychiatric services, the figures were almost exactly reversed in less than a year: In October 1944, of all the neuropsychiatric casualties in the Fifth U.S. Army, 82.5 percent were returned to some type of duty in the Army, while only 17.5 percent were evacuated out of the Army area.[20]

[20] History, Fifth Army Medical Service, 1945, p. 156.

WINTER LINE AND CASSINO STALEMATE

Tactical Considerations [21]

The Winter Line included a series of strongpoints several miles in front of the heavily fortified Gustav Line, the main enemy defensive system. Monte Cassino, key to the Gustav Line, was situated above the town of Cassino and dominated the entrance to the Liri Valley through which the major road and railroad ran northwest to Rome, 80 miles away (map 4). The approach to Cassino and the Liri Valley was through the Mignano Gap, which was controlled on either side by German-held mountain masses, and barred at its northern outlet by the Rapido River. Allied plans called first for securing the enemy-held mountains dominating the Mignano Gap.

[21] Wiltse, *op. cit.*, pp. 238–249.

MAP 4.—Cassino front, 15 February 1944.

Then would follow a forced crossing of the Rapido River south of Cassino while executing a flanking movement through the mountains northeast of the town.

Fifth U.S. Army was substantially reorganized and reinforced during the latter half of November 1943, and on 1 December, the attack began. During the next weeks of rugged mountain fighting in the rain, cold, and mud, Allied forces advanced only an average of 5 to 7 miles. The capture of Mount Trocchio, the last mountain stronghold before Cassino, on 15 January 1944, brought the Fifth U.S. Army up to main defenses of the Gustav Line. Battle casualties had been heavy, and fatigue and exposure had also taken a great toll.

Allied strategy called for the Fifth U.S. Army to engage the maximum German strength by a major assault against the Gustav Line in conjunction with landings at Anzio, scheduled for 22 January 1944. Preliminary attacks by the French Expeditionary Corps and the British 10 Corps made only slight progress. The main assault was launched by the U.S. II Corps in the center of the Fifth U.S. Army on the night of 20 January. Spearheading the attack was the U.S. 36th Infantry Division, whose mission was to cross the Rapido River below Cassino. But the entrenched enemy was neither surprised nor unprepared. German artillery could rake the whole line of the Rapido River with crossfire. The approaches to the river were skillfully and lavishly strewn with mines, and on the German side of the river, mines and wire entanglements were backed up by a belt of dugouts and concrete pillboxes from which the entire river line could be blanketed by machinegun fire. The Allied river crossing was a complete failure.

In the ensuing 2-day struggle, the 36th Infantry Division lost 2,019 officers and men in killed, wounded, and missing. (Some replacements reached the 36th Division on the night of the attack and, thus, did not even see their officers by daylight before being led into combat.)

For the next 2 weeks, II Corps threw all its strength into an effort to break through the Cassino defenses. On 2 February, elements of the 34th Infantry Division broke into the town of Cassino itself, but the Germans reinforced their lines and the Allied drive was stopped. On 12 February, II Corps went over to the defensive. The New Zealand Corps renewed the attack during 15–20 February, but were similarly unsuccessful. The Cassino front lapsed into inactivity until 15 March, when the New Zealand Corps launched a second drive, but again the Gustav Line held, and the frontal attack on Cassino was abandoned.

Combat Casualties

The frustrating winter fighting produced heavy casualties of all types. Problems of medical evacuation continued, including the difficult littering of the wounded down steep mountain slopes (fig. 3). Exposure to inclement

FIGURE 3.—Rough going.

weather (rain, cold, and snow) complicated the fighting and brought forth a considerable incidence of trenchfoot, nonbattle injury, and respiratory disease which, along with a high rate of infectious hepatitis, psychiatric disorders, and battle casualties, caused marked attrition of combat personnel.

Evolution of a Specialized Army Psychiatric Facility

During the early weeks of this period, psychiatric casualties continued to be cared for by the single psychiatrists assigned to evacuation hospitals. But, as before, centralized direction and coordination of the psychiatric effort were lacking. As a result, most of these casualties continued to be evacuated to base hospital facilities in Italy and North Africa.

Hanson's visit.—In late November 1943, Maj. (later Lt. Col.) Frederick R. Hanson, the North African theater consultant in neuropsychiatry, was finally permitted to visit the Fifth U.S. Army in Italy for the first time. During wartime, a theater medical specialty consultant has to obtain permission from the field army commander before visiting a combat area. In

practice, authority and arrangements for such visits are usually delegated to the army surgeon. Reasons for the prolonged delay of Major Hanson's visit (2½ months after the Salerno landings on 9 September 1943) are not known with certainty. Perhaps, as indicated by Colonel Long, in reference to the early days of the theater, specialty medical consultants were still regarded more as inspectors from a higher headquarters than as a source for providing practical help (p. 26). During those times, it was still difficult for psychiatric disorders to be accepted as an inevitable consequence of prolonged exposure to severe combat conditions. Psychiatric breakdown was regarded as dishonorable failure in combat which in some way reflected unfavorably upon command.

Thus, as in the Tunisia Campaign, only when psychiatric casualties became numerous were psychiatrists welcomed in the forward areas to find a solution to the problem. Certainly, Major Hanson was not loathe to visit a combat zone. His record of participation in the Dieppe and other raids on the Normandy Coast, his psychiatric role in the Tunisia Campaign, and his participation in the Sicilian landings indicated a high degree of motivation and interest in observing behavior under combat conditions. Indeed, perhaps it was this reputation of Major Hanson which may have influenced Colonel Martin to keep him out of Italy, since the army surgeon's office would have been responsible for the safety of such a visitor from a higher headquarters.

Regardless of the circumstances of the visit, Major Hanson, with the help of Captain Drayer, convinced Colonel Martin of the urgent need for a greater centralization of the psychiatric effort within the Fifth U.S. Army. As a consequence, the 2d Platoon of the 601st Clearing Company, 161st Medical Battalion, was designated to serve as the Fifth Army Neuropsychiatric Center, better known as the "601st."

The "601st."—The 601st became operational on 21 December 1943,[22] and initially was located from 15 to 20 miles to the rear of the fighting near Pignataro Maggiore on Highway No. 6 (via Casilizia), the main supply route in the Fifth U.S. Army sector. Hence, it was not difficult to transport patients to the 601st and return those who improved directly to their original combat units.

The 601st was rapidly transformed into a special psychiatric field facility by augmentation up to nearly double its enlisted strength and by the addition of tentage, housekeeping, and shower facilities, along with other equipment, to accommodate 250 patients. Originally, four psychiatrists were attached to the center, all of whom had had previous experience in the Mediterranean theater. They were Capt. (later Maj.) Alfred O. Ludwig, MC, Capt. (later Maj.) Stephen W. Ranson, MC, Capt. (later Maj.) Walter L. Ford, MC, and Captain Drayer.

Initial program.—With excellent cooperation from the officers and

[22] History, Fifth Army Medical Service, 1944, p. 51. [Official record.]

enlisted men of the unit, a coordinated program of psychiatric care was soon established. During this period, as previously stated, combat stress in the Fifth U.S. Army was severe; battle injuries and psychiatric casualties were numerous; and the beds at the 601st were kept filled much of the time (fig. 4). However, treatment in the new unit could be initiated early and in a setting of tents, cots, and simple housekeeping arrangements with a minimum amount of hospital paraphernalia. In the rear combat area

FIGURE 4.—Fifth U.S. Army Neuropsychiatric Center—the "601st." (Top) Arrival of "exhaustion" patients. (Bottom) Admission of "exhaustion" patient.

where the 601st was located, artillery fire was occasionally heard, the battered terrain reflected the recent combat, and the talk and dress of combat soldiers were the predominant milieu. Under these circumstances, patients could more readily maintain identity and involvement with their combat units from the standpoint of time, space, and environment.

It was soon evident that about 30 percent of patients could be recovered for return to combat duty and many others salvaged for assignment with combat support units within the Fifth U.S. Army. With the increasing experience of fresh combat psychiatric disorders, psychiatrists of the 601st rapidly developed a more realistic understanding of acute reactions to battle stress than they had been able to gain either from their previous work in more rearward installations or from reports from others.

Later developments.—The establishment of the 601st marked a milestone in the utilization and acceptance of psychiatry in the combat zone. Captain Drayer was welcomed at the Office of the Surgeon, Headquarters, Fifth U.S. Army, and became the unofficial Fifth U.S. Army consultant in neuropsychiatry. (In July 1944, he was so designated formally.)

The existence of a field psychiatric facility in the Fifth U.S. Army made it possible for psychiatrists to visit and be visited by line commanders and staff officers to discuss and consult on problems of morale, delinquency, medicolegal procedures, and specific psychological difficulties of units or individuals. Psychiatrists of the 601st became familiar with problems of manpower, organization, informal and formal channels of communication, and other milieu characteristics of a combat army, and soon became identified with its values and objectives. In turn, many senior line and medical officers came to learn that most psychiatrists were not odd, impractical do-gooders, who spoke a strange language and were only interested in protecting the "weak" and the unmotivated, but constituted a professional resource which could be depended upon to apply technical skills for the solution of specific individual problems or to recommend and implement practical programs of reducing manpower losses due to psychological causes.

Soon the center or focus of theater psychiatry shifted from the psychiatric hospitals in North Africa to the 601st in Italy. Perhaps this move was inevitable as these base section hospitals were now far to the rear. Perhaps, also, the usual evils of increasing rigidity of formal organization, with accompanying administrative restrictions and other minor harassments, which tend to develop more readily in safe rear areas, interfered with the spontaneous, free interchange of ideas and initiative. At any rate, the 601st became the forum and testing ground for old and new ideas and procedures. Here, psychiatrists freely debated and discussed the respective merits of this or that concept or technique. Individual psychiatrists wrote of their experiences. One such presentation, "The Normal Combat Reaction" by Captain Ranson, supplied a valuable working concept and enhanced

understanding of the difference between even extreme battle discomfort and psychiatric symptomatology.

At the 601st, Captain Drayer, then Captain Ludwig, and finally Capt. (later Maj.) Edwin A. Weinstein, MC, were successively chiefs of the clinical service, but each was a working member of the staff and achieved the leadership role on the basis of demonstrated professional skill and take-charge capability.

It was difficult for the newly arrived psychiatrist to find any evidence of formal command or commanders. Clearly, the administrative medical officers were mainly occupied in supporting the professional services. Undoubtedly, the commanding officer of the 601st Clearing Company or the commanding officer of the 161st Medical Battalion was technically in command of the Fifth U.S. Army Neuropsychiatric Center, but these officers only visited occasionally and were seemingly content to let psychiatrists operate the 601st—a most unusual and liberal concept at that time.

It may have been the happy circumstance that all psychiatrists at the 601st were of equal military rank—all captains—which contributed to high morale. Regardless of reasons, under these informal working and living conditions, a singularly favorable climate was created for professional stimulation in finding solutions for the problems of combat psychiatry. Naturally, not all was sweetness and light! The psychiatrist who proposed concepts or techniques was subjected to thorough criticism, sometimes ruthless, with unflattering comments, and he either adequately defended his concepts or retracted them or left the fray wounded and sulking. Also, personality clashes occurred from time to time as in any unit whose members spent most of their time living and working together.[23]

ANZIO BEACHHEAD

Tactical Events

On 22 January 1944, the Allied armies in Italy, blocked in their advance on Rome by the enemy Gustav Line, attempted to bypass this formidable barrier by landing at the Anzio-Nettuno area, some 30 miles from Rome (Operation SHINGLE). The strategy included attacks across the Rapido River, as previously described, designed to divert enemy strength from the Rome area to permit a quick breakout of the Anzio forces and, in turn, compel a German withdrawal from the Gustav Line.[24]

Initially, little resistance was encountered by the beachhead forces, and casualties were negligible. However, within several days, the attack was stalled by logistic problems and stiffening enemy resistance as fresh German units were rushed to the area. Then, until 5 March, when the Allied

[23] Additional information on the "601st" is presented in chapters III and V.
[24] Wiltse, *op. cit.*, p. 267.

forces finally forced the Germans over to the defensive, the Anzio beachhead remained "a flat and barren little strip of Hell: a front without a rear, where hospitals stood only six miles from the fighting lines and were backed against the sea [map 5]. Instead of the wildcat Churchill had hoped to hurl at the enemy's flank, SHINGLE had become a stranded whale." [25]

The Anzio landing split the Fifth U.S. Army into two forces: those on the beachhead, including sizable British elements and several American divisions and supporting units; and the remainder, located before the Gustav Line.

Psychiatric Casualties

Management.—Although the 601st continued to function as the neuropsychiatric center for the Fifth U.S. Army forces fighting at the Gustav Line, modification of such a psychiatric service had to be developed at Anzio. Captain Drayer was sent from the 601st to the beachhead to survey the situation in mid-February 1944 and, shortly thereafter, was joined by Major Hanson. After the chief German counterattack had subsided on 19 February, the beachhead area stabilized and remained unchanged until the May breakthrough toward Rome. The stabilized beachhead had a length of only 15 miles and a maximum depth of only 7 miles. Obviously, all services had to function as efficiently as possible in very limited areas which were all within the range of enemy artillery.[26]

Under these harsh circumstances, no separate army neuropsychiatric facility similar to the 601st could be provided on the Anzio beachhead. An effort was made, however, to concentrate psychiatric casualties in one treatment area to facilitate their prompt evaluation and early treatment. Two ward tents of the 56th Evacuation Hospital were designated as the neuropsychiatric center for the beachhead (fig. 5). Heading the center was the 56th Evacuation Hospital psychiatrist, Lt. (later Capt.) Samuel R. Rosen, MC, who had recently been transferred from the 114th Station Hospital, the base psychiatric hospital in Tunisia.

Inadequacy of beachhead center.—Two factors militated against initial success of the beachhead arrangement: the limited number of hospital beds on the beachhead made it difficult to maintain a holding policy of more than 2 days for any patients admitted to an evacuation hospital, and the hospital area was known to be dangerous (26 persons had been killed and 64 had been wounded in the 95th Evacuation Hospital (fig. 6) in the same area as a result of enemy action on 7 February 1944).[27] Consequently, anxieties aroused in combat were increased in most psychiatric casualties hospitalized in a situation which was regarded as being even more perilous than the

[25] *Ibid.*, p. 272.

[26] Medical officers quipped about needing a flag of truce to go to the latrine!—C. S. D.

[27] History, Fifth Army Medical Service, 1944, p. 22.

MAP 5.—Anzio beachhead and surrounding areas.

FIGURE 5.—Hospital Center, Anzio beachhead, 1 May 1944. Neuropsychiatric wards in 56th Evacuation Hospital are indicated by arrow.

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FIGURE 6.—Ward tent damaged by German bombs, 95th Evacuation Hospital, Anzio, 7 February 1944.

nearby "front" from which they had been evacuated. There were 483 neuropsychiatric admissions to the 56th Evacuation Hospital between 16 and 29 February 1944. Only 9.6 percent were returned to duty.[28] With subsequent help from successive visits by Captain Ludwig and then Captain Ranson of the 601st, Lieutenant Rosen was later able to improve these results somewhat.

In early April 1944, the 56th Evacuation Hospital was damaged by German bombs. This hospital was promptly replaced by the 38th Evacuation Hospital in which Capt. Harold S. Wright, MC, was the psychiatrist. Captain Ranson remained at Anzio to work with Captain Wright. In late April, Capt. (later Col.) Albert J. Glass, MC, who had previously joined the 601st, replaced Captain Ranson at Anzio.

[28] *Ibid.*, p. 55.

Because division psychiatry became operational at the Anzio beachhead in March 1944, the further development of combat psychiatry in the Mediterranean theater is considered in chapter III.

SUMMARY

During the early phases of the Fifth U.S. Army campaign in Italy, beginning with the landings at Salerno, a second echelon of specialized neuropsychiatric care at field army level was established and a new era of combat psychiatry emerged in World War II. But the knowledge, insights, and better results gained by the more forwardly located "601st" made it evident that even more effective treatment could be obtained if psychiatrists were assigned to divisions and permitted to operate in the battle area. Authorization for division psychiatrists was finally obtained on 9 November 1943. From this date, almost 2 years after Pearl Harbor, it became possible to duplicate the three-echelon organization for psychiatric treatment of combat casualties which had proved to be so effective during World War I.

CHAPTER III

Italian Campaign (1 March 1944–2 May 1945), Psychiatry Established at Division Level

Colonel Albert J. Glass, MC, USA (Ret.), and
Lieutenant Colonel Calvin S. Drayer, MC, AUS (Ret.)

ANZIO BEACHHEAD

Although the War Department had authorized the assignment of a psychiatrist to each combat division in November 1943, it was not until 1 March 1944 that division psychiatry was implemented in the Mediterranean theater. This occurred in the setting of the Anzio beachhead.

As elsewhere described (p. 41), all U.S. Army hospitals and division clearing stations on the small beachhead (7 by 15 miles) were concentrated in one location. Initially, and for some time, the hospital area had little of the dug-in protection enjoyed by combat troops. Instead, reliance was placed upon large and clearly visible Red Cross tent markings as prescribed by the Geneva Convention.

In this small area, the severest handicap to psychiatric treatment was the intermittent enemy shelling of nearby targets and the roar of beachhead fire in return. The benefits of sleep and rest could not be obtained without heavy sedation; but the use of sedation constituted a real danger. When the hospital area was shelled or bombed (possibly by accident), it was most difficult for the few available personnel to move the drugged patients from the relatively unprotected wards to the nearby trenches. Another handicap was the 48-hour holding policy which had been established for the beachhead, because of the limited number of beds. This made it impossible to retain psychiatric casualties for adequate treatment in the forward area.

Other circumstances added to the unfavorable conditions of treatment. Patients complained bitterly that they were better protected in their own foxholes. The daily evacuation of other patients to safe hospitals in Naples provided for the psychiatric patients, conscious or unconscious gain in illness which made return to duty more difficult to accomplish. Indeed, the harassment of personnel at Anzio, with intermittent shelling by day and almost constant shelling by night, was so severe that, for the first time, psychiatric casualties occurred in sizable numbers from support troops, such as personnel in evacuation hospitals and in quartermaster, signal, and ordnance units, who ordinarily were not subjected to sustained combat dangers.

Initial Experiences

3d Infantry Division.—On the Anzio beachhead, division psychiatry first became operational in the 3d Infantry Division. This division, concerned because of large neuropsychiatric losses, welcomed the assignment of Capt. Joseph Robert Campbell, MC, from the 15th Evacuation Hospital which was then at Anzio, as division psychiatrist.[1]

On 1 March 1944, Headquarters, 3d Division, established a provisional psychiatric unit, with one line officer and seven enlisted men under the supervision of Captain Campbell. The unit was attached to the division's engineering battalion. The patients referred to this unit were screened by Captain Campbell. Those with severe or fixed psychiatric disorders were referred to the division clearing station for evacuation; milder psychiatric cases and disciplinary problems were retained in the provisional unit for treatment.

In this nonhospital environment and pragmatic atmosphere of an engineer unit, the men were given regular duties under the supervision of the assigned line officer, with interview therapy by the division psychiatrist. The results obtained from 4 March to 30 April 1944 were as follows: Of 90 psychiatric cases, 59 (66 percent) were returned to duty. Of 81 disciplinary cases, 24 (30 percent) were returned to duty, 39 (48 percent) were referred to the stockade, and 18 (22 percent) were medically evacuated.[2] These results were far superior to the 10 to 15 percent return to duty of psychiatric casualties from the beachhead evacuation hospital neuropsychiatric center (the 56th Evacuation Hospital, replaced on 8 April by the 38th Evacuation Hospital) and demonstrated the more favorable therapeutic effect of a regimen provided in a nonhospital atmosphere, with supervised work and firm control and, thus, little suggestion of gain in illness.

The favorable results may also have been attained because Captain Campbell was a decisive and firm psychiatrist who had had considerable experience with combat psychiatric casualties during his assignment at the 15th Evacuation Hospital. Moreover, Captain Campbell was strongly supported by the division surgeon, Lt. Col. Frank R. Drake, MC, and was given adequate personnel and facilities to accomplish his mission.

34th Infantry Division.—In sharp contrast was the initial experience of Capt. (later Maj.) Raymond Sobel, MC, who also was assigned as a division psychiatrist while on the Anzio beachhead. Captain Sobel had served for many months with the 34th Infantry Division as the 175th Artillery Battalion surgeon. On 15 March 1944, he began to function as the division psychiatrist and was stationed at the division clearing company.[3]

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[1] Since all division clearing stations and evacuation hospitals were in the same area, Captain Campbell moved a short distance only to his new assignment.—A. J. G.

[2] Wiltse, Charles M.: The Medical Department: Medical Service in the Mediterranean and Minor Theaters. United States Army in World War II. The Technical Services. Washington: U.S. Government Printing Office, 1965, p. 285.

[3] Psychiatric History of the 34th Infantry Division, p. 5. [Official record.]

At first, he received little cooperation. Attitudes of both line and medical officers were ambivalent, and enlisted assistants were not furnished. Since the War Department had authorized only a division psychiatrist, any supporting staff or facilities were provided in an informal manner, and much depended upon the ingenuity of the division psychiatrist and his ability to sell himself.

After several weeks, Captain Sobel succeeded in obtaining two enlisted assistants and a pyramidal tent for the holding and treatment of 14 patients. There was, however, considerable hostility toward holding sedated patients in the vicinity of the clearing station, and it was necessary to refer these cases to the nearby evacuation hospital. Also, lack of transportation made it difficult for Captain Sobel to visit battalion surgeons. Thus, while on the beachhead, the 34th Infantry Division psychiatrist began to interpret to line and other medical officers the potential value of psychiatric services in a combat division. Eventually, his efforts bore fruit, for Captain Sobel developed a superior program (see pp. 73–75).

Other divisions.—Also at Anzio beachhead, in March 1944, Capt. (later Maj.) Douglas G. Kelling, MC, psychiatrist of the 94th Evacuation Hospital, was assigned to the 45th Infantry Division. For unknown reasons, the 1st Armored Division, with many of its units on the beachhead, did not acquire a psychiatrist until June 1944.

"Old Sergeant Syndrome"

The three division psychiatrists (Captains Campbell, Sobel, and Kelling), the psychiatrists of the evacuation hospitals, and a psychiatrist [4] from the Fifth U.S. Army Neuropsychiatric Center (the "601st") who was sent to reinforce the beachhead psychiatric center at the 38th Evacuation Hospital, formed the "Anzio Beachhead Psychiatric Society." This was an informal organization which met at irregular intervals for mutual support and interchange of clinical experiences. It was during these fruitful discussions that Captain Sobel developed the concept of the "old sergeant syndrome." [5]

The setting.—By the period of March–April 1944, the 34th Infantry Division had accumulated more than 136 combat days in Italy, after having previously fought in the major battles of the Tunisia Campaign.[6] Whether it was true or not, combat personnel of the division had come to believe that they had endured more days of battle than any other unit and were, therefore, entitled to be rotated to the United States or, at least, to be placed on noncombat duty. Interestingly enough, this viewpoint was also

[4] Psychiatrists consecutively assigned were Capt. (later Lt. Col.) Calvin S. Drayer, Capt. (later Maj.) Alfred O. Ludwig, Capt. (later Maj.) Stephen W. Ranson, and Capt. (later Col.) Albert J. Glass.

[5] Because of the later widespread usage of this term, even during the Korean War (June 1950–July 1953), and its implications for the etiology of the war neuroses, it is of some historic importance to explore the circumstances under which this clinical entity was brought forth.—A. J. G.

[6] Psychiatric History, 34th Infantry Division, p. 5.

assumed by relative newcomers to the division, who through association and identification readily absorbed the prevailing attitudes and beliefs. The division psychiatrist, Captain Sobel, found that two groups in particular exhibited poor morale. First were the "old men," veterans of the Tunisia Campaign who were "fed up * * * and resentful * * *. Long range values had no appeal for them and their sole interest was in survival." Second were a large number (300) of men who had been sent to the 3d Convalescent Hospital for reclassification to noncombat duty because of physical defects. However, almost all these men had been returned to the division. "Disillusioned, frustrated, and hostile, they lowered the morale of all those about them." Sobel correlated these manifestations of low morale with the occurrence of an increasing number of disciplinary problems.

Manifestations.—It was during this rather static period (March–April 1944) of the beachhead that veteran soldiers of the 34th Infantry Division began to exhibit unique chronic anxiety disorders which Sobel aptly named the "old sergeant syndrome." The affected soldiers were generally noncommissioned officers who were old in combat days, but not necessarily in years. The essential features of the syndrome were "preexisting social and emotional adjustment of a high degree; marked sense of responsibility; long combat in a responsible position such as a noncom or officer; excellent group consciousness and motivation; gradual onset of anxiety after four or five months on the line with resultant contraction of the personality and marked guilt feelings over having left the group." [7]

The "old sergeants" showed little anxiety when in rear areas and readily accepted noncombat divisional reassignments. They displayed a form of guilt or self-depreciation and used such phrases as "I'm no good," "all burned out," "all shot," "can't help the boys anymore," "I'll just get them killed." It was quite clear that a marked change had occurred in these men over the past weeks, in that shelling or other battle stimuli produced uncontrollable trembling with freezing or inability to think and function in an almost conditioned reflex manner, which was in marked contrast to a previous take-charge capability in combat. Only occasionally were there tears or other outward manifestations of emotion. Rather, the individual appeared to be subdued, depressed, and somewhat apathetic. He sadly admitted that he was not sick, but different or changed, and could no longer tolerate combat stress.

Causes.—The "old sergeant syndrome" seemed to confirm that "every man has his breaking point," even for those personnel who had demonstrated prior superior combat effectiveness and leadership ability. These cases were impressive evidence in support of a rotation policy to prevent such seemingly inevitable breakdowns in combat. Undoubtedly, repeated exposure to combat over considerable time produces crippling anxiety in

[7] *Ibid.*, p. 7.

battle in normal or nonpredisposed persons. Thus, the "old sergeant syndrome" was, and is, a valid operational construct in military psychiatry. However, there were practical questions which remained to be answered. How many and what types of combat days produced such chronic anxiety states in average or superior soldiers? Who was to be the judge of the duration of the combat to be endured—the individual, his group, or higher command? Finally, what was the mechanism of psychiatric breakdown? Was it the result of gradual cumulative doses of anxiety—like ionizing radiation—or did there need to occur special terrorizing or adverse events in battle in which the individual was helpless or unable to utilize previously effective modes of function in combat?

The "old sergeant syndrome" manifested itself in a group who were convinced that they had performed more than their share of combat duty. One wonders whether this consensus of values did not influence the appearance of the syndrome at this time, the symptoms of which were quite well accepted by the group. More often than not, the "old sergeant" was evacuated with a note by his company commander or battalion surgeon attesting to the soldier's prior capability, long combat service, superior motivation, but current inability to function in battle, thus seeming to certify that relief from combat was deserved and sanctioned by the group.

Later developments.—As the Italian campaign continued, the "old sergeant syndrome" appeared in other divisions. In the authors' experience, these later cases did not necessarily present the uniform clinical picture as described from the 34th Infantry Division. For example, some had guilt, while others did not—believing that they had gone as far as possible and given their best efforts. The syndrome came to be applied to any psychiatric casualty who had experienced a considerable duration of combat and developed a reflex response of trembling and helplessness to battle stimuli. As previously described, these combat veterans were quite aware of their phobic reactions to battle conditions. Most accepted their problem as a logical consequence of prolonged combat and readily agreed to a noncombat divisional assignment. When examined in such rear areas as the clearing station, they displayed little of the tension, tremor, and other anxiety symptoms usually exhibited by acute psychiatric casualties. Perhaps this was because with time and group acceptance (including acceptance of the psychiatrists), the "old sergeant syndrome" came to represent an honorable casualty, a status much like that of a battle wounded casualty who, as was well known, also manifested little or no anxiety when in medical channels.

Consensus as to the duration of combat that could be endured or was required to produce the "old sergeant syndrome" changed as the war continued. Individuals were found who became psychiatric casualties after much more combat exposure than was previously deemed reasonable, and certainly there were rare veteran personnel who remained in active combat

assignments until the war ended without manifestations of emotional breakdown. However, it must be pointed out that attrition from battle injury and disease alone was so great as to make prolonged continuation in combat of quite infrequent occurrence, and even more uncommon was such survival unaffected by emotional disorder.

It became increasingly evident that it was not the number of days of battle exposure which accounted for the reflexlike anxiety response of the "old sergeant," but rather the severity of combat or the particular adverse events which were experienced. Most psychiatric casualties, including those with the "old sergeant syndrome," usually gave a history of incapacitating anxiety manifestations beginning after one or another intense battle episode, in which there had occurred either a disruption of the group because of heavy casualties or a situation in which the individual found himself helpless or unable to utilize previously successful adaptive measures. During such circumstances, whether actual or subjective, the individual felt deprived of the sustaining power afforded him by the group and its leaders, or believed that he had lost his own adaptive capability, or both. Thus, he felt overwhelmed by the terrors of battle, helpless or alone, with no means of evasion, resistance, or support. Under certain conditions, being wounded was such a traumatic occasion. It was these adverse battle experiences that weakened the defenses or self-confidence of the soldier and his ability to tolerate the battle environment. The number and severity of these traumatic combat episodes which could be borne by the individual, and perhaps also accepted as sufficient sacrifice by the group, apparently determined the time of psychiatric breakdown.[8]

For the reasons just stated, psychiatrists in the Mediterranean theater believed that the development of incapacitating psychiatric casualties, particularly the "old sergeant syndrome," was more the result of a discontinuous steplike rise in anxiety than a gradual increase of anxiety corresponding to the days of combat exposure.[9] Generally, there are many more uneventful combat days with relatively few casualties and only desultory activity than days of intense battle action in offense or defense which produce the majority of injuries and deaths. Obviously, individuals who experienced a considerable duration of combat had more opportunities for exposure to traumatic episodes than personnel whose participation was brief. Perhaps the "old sergeant syndrome" had its origin mainly in the repetitive breakdown of group supports over considerable time rather than a quantitative accumulation of anxiety.

[8] In this connection, the Marine Division in Korea had an informal policy of relief from combat of personnel who had incurred two battle injuries, regardless of physical fitness for further combat duty.—A. J. G.

[9] Glass, A. J.: Psychiatry at the Division Level. Bull. U.S. Army M. Dept. (supp.) 9: 45–73, November 1949.

MAIN FIFTH U.S. ARMY FRONT

36th Infantry Division

On the southern or main Fifth U.S. Army front before the German Gustav Line, also in March 1944, Capt. (later Maj.) Walter L. Ford, MC, of the 601st was assigned as the 36th Infantry Division psychiatrist. He was welcomed to this division which was still recovering from the morale-shattering experiences and heavy losses of its ill-fated Rapido River crossing attempt in late January 1944 (p. 35).

88th Infantry Division

The newly arrived 88th Infantry Division was placed on the battle-line of the southern Fifth U.S. Army forces on 2 March 1944. The division psychiatrist, Capt. (later Maj.) Joseph Slusky, MC, had joined the division in the United States during November 1943. He participated in the screening of personnel before overseas shipment and in the training in North Africa and, thus, had become familiar with divisional problems and key divisional personnel. Upon entry into combat, Captain Slusky was given two enlisted assistants and two pyramidal tents to operate a division exhaustion center at the clearing station.[10] The assigned sector (Minturno-Castelforte) was quiet, and from 3 March to 11 May 1944, the few exhaustion cases that occurred were readily handled by this small psychiatric unit.

With the success of the 3d Infantry Division (pp. 48–49), in the treatment of psychiatric cases on the Anzio beachhead, Fifth U.S. Army headquarters ordered the 88th Infantry Division to initiate a similar program. Accordingly, on 18 April, the 88th Infantry Division Training and Rehabilitation Center was established, commanded by a line officer with two noncommissioned officers as assistants, all with combat experience. The division psychiatrist acted as the consultant, and the center was attached to the division clearing company. Actual operations began on 11 May 1944 with the Rome offensive.[11]

85th Infantry Division

The 85th Infantry Division, also newly arrived in Italy, was placed in combat as a unit for the first time with the southern Fifth U.S. Army forces on 10 April 1944. The division psychiatrist, Capt. (later Maj.) Emanuel Messinger, MC, who had assumed his position on 1 December 1943, functioned mainly as a psychiatric consultant out of division headquarters. With entry into combat, Captain Messinger transferred his

[10] Letter, Maj. Joseph Slusky, MC, Division Neuropsychiatrist, Headquarters, 88th Infantry Division, to Psychiatrist, Headquarters, MTOUSA, APO 512, U.S. Army, 15 May 1945, subject: Neuropsychiatric Service in the 88th Infantry Division.

[11] Wiltse, *op. cit.*, pp. 314–315.

activities to the division clearing company where a psychiatric treatment unit had been established for handling 50 patients under tentage. Three enlisted assistants were provided. These facilities were adequate during the static defensive positions maintained by the division in the Minturno sector from 10 April to 11 May 1944. During this period, psychiatric admissions averaged three cases a day.[12]

ROME OFFENSIVE (11 MAY–6 JUNE 1944)

Assault on Gustav Line

In this brief but furious offensive against determined enemy opposition, division psychiatry, which had been gradually established in the previous several months, received its first full-scale combat test. The three-echelon system of combat psychiatry, which had been developed in the American Expeditionary Forces of World War I, was finally duplicated in this campaign and was operational for the first time in World War II.

On 11 May 1944 (map 6), the southern front forces, composed of British Eighth Army units, the American II Corps (mainly the 85th and 88th Infantry Divisions), the Polish Corps, and the Free French Expeditionary Corps, struck hard at the German Gustav Line.[13] For the 85th and 88th Infantry Divisions, the offensive was their first severe combat experience.

85th Infantry Division.—After 4 days of violent fighting, the 85th Infantry Division, in its sector, broke through the Gustav Line and, in the process, suffered 2,000 battle injuries, in addition to those killed and missing, and 250 "exhaustion" cases. Many of the psychiatric casualties exhibited severe reactions, including pseudopsychotic and terror manifestations commonly observed in troops new to intensive combat. The existing division psychiatric facilities attached to the clearing company proved grossly inadequate to handle the sudden large influx of patients. Only 57 of the 250 psychiatric casualties could be held and treated at the division level. The remainder were evacuated to the 601st which was so positioned as to render prompt backup support. This experience demonstrated the crucial importance of the second level of combat psychiatry (field army psychiatric facility—601st), which can provide alternate and flexible treatment resources when forward psychiatric facilities are temporarily unable to function adequately because of a large number of casualties, difficulties of intra-division evacuation, or adverse tactical situations.

After 15 May, the fighting became more fluid, and both battle casualties and exhaustion cases decreased from their previous high levels. However, it was necessary for the division clearing stations to move frequently

[12] Letter, Maj. Albert J. Glass, MC, Division Psychiatrist, Headquarters, 85th Infantry Division, to Surgeon, Fifth Army, 27 May 1945, subject: Brief History of Division Psychiatry.

[13] Wiltse, *op. cit.*, pp. 291–295.

MAP 6.—Cassino front, 11 May 1944 offensive.

to provide medical support to the advancing elements. This posed another difficulty for the forward management of psychiatric patients for, while the mission of the clearing station in combat was to "clear" or evacuate patients rapidly so as to be prepared for prompt movement, the function of the psychiatric unit attached to one of the two clearing stations was to hold and treat for several days in order to return patients to duty. It was difficult to move psychiatric patients forward as often as the clearing stations were required to move in the later stages of the offensive as the 85th Infantry Division participated in the capture of Rome and in the chase of the enemy northward.

On 10 June 1944, the division was relieved, having incurred approximately 4,000 battle and 623 psychiatric casualties. Only 150 psychiatric patients were returned to duty from the division level.[14]

88th Infantry Division.—In sharp contrast to the problems and deficiencies of psychiatry in the 85th Infantry Division was the apparent effectiveness of the 88th Infantry Division psychiatric program during the same combat period. For the most part, the difference can be explained

[14] See footnote 12, p. 54.

by the less intense battle experience of the 88th Infantry Division, with fewer combat casualties and thus fewer psychiatric cases.

In the 4-day assault and breakthrough of the Gustav Line in its sector, the 88th Infantry Division incurred 650 WIA (wounded in action) and 125 psychiatric casualties, which was approximately one-half of such casualties borne by the 85th Infantry Division in the same time period. For their total participation in the Rome offensive (11 May–9 June), the 88th Infantry Division had 1,300 wounded and 248 psychiatric casualties,[15] less than one-half suffered by the 85th Infantry Division. In addition, the 88th Infantry Division was better prepared to hold and treat psychiatric casualties because its training and rehabilitation center which had been established in April became operational on 11 May 1944. Also, according to Captain Slusky, as a likely consequence of the less severe battle experience of the 88th Infantry Division, psychiatric casualties at this time had experienced minimal physical deprivation due to fatigue or lack of sleep and food. Of the 248 psychiatric casualties, 141 (57 percent) were returned to duty from the division level.[16]

Psychiatric treatment, including the use of the training and rehabilitation center, during this period was described by Slusky substantially as follows: Exhaustion cases were first admitted to the division clearing station where they were evaluated by the division psychiatrist and retained for several days of sleep, rest, and food, with sedation as required. After 24 to 48 hours, patients were reexamined by the division psychiatrist. Men with a favorable prognosis were retained; those not responding to treatment were evacuated to the 601st. Retained patients who exhibited improvement after 2 to 3 days were transferred to the nearby division training and rehabilitation center, where they received lectures and participated in calisthenics, hikes, and other physical activities, including tactical training with weapons, all under the supervision and control of an infantry officer assisted by two line noncommissioned officers. Most patients were ready for duty after 2 days at the center; others were retained for several days longer; and a few whose symptoms persisted were evacuated to the 601st.

All patients who were returned to duty were given a final evaluation and approval by the division psychiatrist. In effect, the division psychiatrist determined the disposition of patients from the training and rehabilitation center and, thus, was in control of patients, although he served in an advisory capacity insofar as the training was concerned.

Breakout From Anzio

On 23 May 1944, VI Corps, which included the American 1st Armored and 3d, 34th, 36th, and 45th Infantry Divisions, and the 1st Special Service

[15] See footnote 10, p. 53.
[16] See footnote 10, p. 53.

Force, began its drive from the Anzio beachhead. Days of violent action ensued as the Germans fought desperately to defend Rome and maintain an escape road for their southern units. A linkup of the beachhead forces (VI Corps) and the advancing 85th and 88th Infantry Divisions (II Corps) from the south, was made after 2 days of severe fighting. The final attack on Rome was launched on 1 June, but the bulk of the German forces managed to evade entrapment. However, mobile U.S. units swept so rapidly into Rome on 4 June that the retreating enemy had no time to destroy the bridges across the Tiber [17] (map 7).

[17] Wiltse, *op. cit.*, pp. 295–297.

MAP 7.—Fifth U.S. Army hospitals, Anzio and Rome, 10 June 1944.

Test Under Severe Combat

The beachhead offensive produced heavy battle losses and a correspondingly high number of psychiatric casualties. In general, the meager division psychiatric facilities were quickly overtaxed and cases overflowed into the nearby beachhead psychiatric center at the 38th Evacuation Hospital and to other evacuation hospitals. Fortunately, the 601st, which had moved repeatedly with the advances of the southern front forces, reached the beachhead area in early June and relieved the 38th Evacuation Hospital of its psychiatric mission.

As in the attack upon the Gustav Line, the beachhead phase of the Rome offensive was a valuable and realistic testing experience for newly established division psychiatry. It was repeatedly demonstrated that only a minority of "exhaustion" cases could be salvaged at the division level because of insufficent tentage or other holding facilities. With little ward space at the clearing stations available to the division psychiatrists, it was necessary to evacuate patients who could have otherwise been restored to duty after several days of rest and recuperation. Thus, it was made clear that in any heavy offensive against determined opposition, which inevitably produces numerous battle losses and many psychiatric cases in a relatively brief period, adequate holding facilities are of crucial necessity for effective forward psychiatric treatment.

The beachhead offensive proved again the value of special army psychiatric facilities in supporting division psychiatry, for here the beachhead psychiatric center and later the 601st were able to hold, treat, and salvage a significant number of "exhaustion" cases who would otherwise have been further evacuated and lost to combat duty. In this connection, psychiatric cases from these veteran divisions on Anzio exhibited less severe types of reactions and were more readily recoverable for combat duty. Perhaps, as in the late phase of the Tunisia Campaign which also terminated in a clear-cut victory, psychiatric patients from the Rome offensive were also influenced by the favorable tactical end result to have increased motivation for rejoining their combat unit. Conversely, when there was severe but indecisive combat as in previous battles on the beachhead and before Cassino, there was understandable reluctance to continue what seemed for the soldier to be an interminable traumatic future which could end only in death or mutilation.

Sobel, and others, observed that a key person in determining the number and severity of exhaustion cases was the battalion surgeon. Inexperienced or indecisive battalion surgeons were easily persuaded to evacuate individuals who exhibited little more than usual battle fears and discomfort. It was a responsibility of the division psychiatrist to inform and orient battalion surgeons as to the criteria for evacuation and the differen-

tiation between normal combat reactions and noneffectiveness from psychiatric symptoms.

Also noted more clearly during this period were the marked differences in the incidence of psychiatric casualties from various units. These differences were found to be related to group cohesiveness, leadership, and other morale phenomena. In this respect, the Special Service Force of brigade strength, composed of American and Canadian volunteers, superbly trained and conditioned with superior leadership, sustained heavy battle losses with a minimum of psychiatric casualties.

PURSUIT TO THE ARNO (6 JUNE–15 AUGUST 1944)

Tactical Events

Initially, after the fall of Rome, the Germans fought only rearguard actions, trading ground for time to regroup and reorganize. Civitavecchia was taken on 7 June; Viterbo, on 9 June; and Grosseto, on 15 June. Thereafter, the Allied advance was progressively slowed by stiffening enemy opposition and more difficult terrain. At this time, the 3d and 45th Infantry Divisions and, somewhat later (26 June), the 36th Infantry Division were withdrawn from the Fifth U.S. Army and sent south to the Seventh U.S. Army staging area in preparation for the invasion of southern France. To replace these veteran units were the newly arrived and untested 91st Infantry Division and, later, the 92d Infantry Division and the Brazilian Expeditionary Force, neither of which saw action during the Arno campaign.

As a result of increasing enemy resistance, Leghorn was not captured until 19 July. Pisa fell on 23 July and the Fifth U.S. Army moved up to the Arno on its entire front. Florence was taken by the British Eighth Army on 4 August. By 15 August (map 8), the Arno River line was secure. However, the weakening of the Fifth U.S. Army by supplying troops for southern France had permitted the enemy to withdraw to the Gothic Line in the northern Apennines. Pursuit beyond the Arno was impossible without rest, reorganization, and resupply. Thus, the enemy had time to establish and improve his fortified positions.[18]

Further Developments

At division level

As might be expected, psychiatric casualties were few in the early and rapid phase of the advance. Then, as combat grew more intense with increasing battle losses, the inevitable psychiatric casualties appeared in sizable numbers. The apparent excellent results of the training and rehabili-

[18] Wiltse, *op. cit.*, pp. 299–302.

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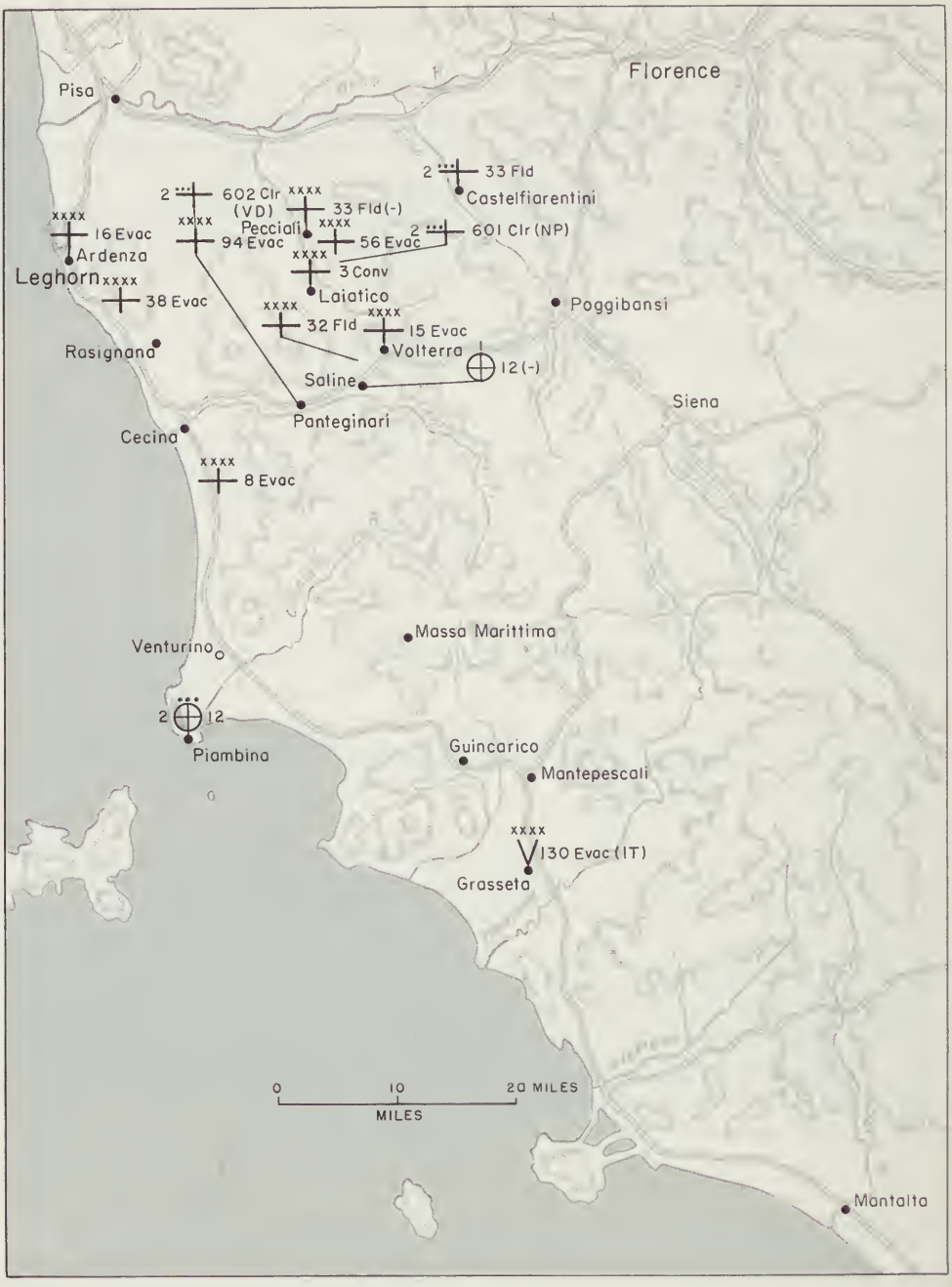

MAP 8.—Fifth U.S. Army hospitals, Arno front, 15 August 1944.

tation center operated by the 88th Infantry Division during the Rome offensive led Fifth U.S. Army headquarters to issue an order on 2 July, directing all divisions to establish similar training and rehabilitation units.[19] However, this order was implemented only gradually and, except for the 88th Infantry Division, other divisional training and rehabilitation units did not become fully operational until after completion of the Arno campaign.

1st Armored Division.—On 17 June 1944, Capt. (later Maj.) Joseph F. Zigarelli, MC, was assigned as division psychiatrist for the 1st Armored Division. One can only speculate as to this unusual delay in the employment of division psychiatry for the only U.S. armored division in the Italian campaign. Perhaps it was believed that personnel protected in tanks and other armored vehicles and engaged in mobile warfare would not be susceptible to combat psychiatric breakdown. Yet, early in the Tunisia Campaign, it was realized that some method for handling psychiatric casualties within the 1st Armored Division was essential.[20] Indeed, psychiatrists working in rear medical facilities commonly observed that survivors from burning tanks or from armored vehicles damaged by enemy shellfire not infrequently became psychiatric casualties, often of a severe and intractable type. At any rate, the need for the intradivisional treatment of psychiatric cases was apparently magnified by the anxiety-producing circumstances of the Anzio beachhead, for it was in March 1944 that a formal request was made for the acquisition of a division psychiatrist.

On 18 June, the 1st Armored Division surgeon called a meeting of all available medical officers for a discussion of psychiatric problems by the division psychiatrist. A working policy was established and the use of the term "N.Y.D. [Not Yet Diagnosed] Functional" was instituted as a preliminary diagnosis for psychiatric casualties.

During the division's next combat phase north of Grosseto, 20 June to 11 July, psychiatric casualties were treated at Medical Company B which served as the division neuropsychiatric treatment unit in addition to its regular mission. Medical Companies A and C evacuated all psychiatric casualties to Medical Company B. During this combat period, 229 psychiatric evacuees were treated, of which 183 were from the 1st Armored Division.[21] No enlisted personnel were assigned to the neuropsychiatric section, but invaluable assistance was provided by personnel of Medical Company B. Approximately 75 percent of the cases were returned to combat duty from divisional facilities.[22] In the ensuing rest period, plans were made for the enlargement of psychiatric treatment facilities, and all officers and many noncommissioned officers of the division attended orientation lectures in psychiatric problems.

[19] Training Memorandum No. 10, Fifth U.S. Army Headquarters, 2 July 1944.
[20] History of 1st Armored Division, p. 6. [Official record.]
[21] *Ibid.*, p. 25.
[22] *Ibid.*, p. 26.

On 1 August, the 1st Armored Division Training and Rehabilitation Center was established and began to function as a separate unit attached to the headquarters company of the division medical battalion.

34th Infantry Division.—The 34th Infantry Division participated in the early and rapid phase of the advance northward until it was withdrawn on 12 June for rest, returning to combat on 25 June. Fighting was then alternately fierce and almost nonexistent as the division, enlarged by numerous attached units, slowly advanced through Cecina and Leghorn, until relieved on 29 July to reorganize and prepare for the attack upon the Gothic Line. In this combat period, the division sustained more than 1,800 wounded and incurred approximately 235 psychiatric casualties,[23] a relatively low or favorable ratio of psychiatric cases to battle injuries.

As experienced previously, ward space and holding facilities made available to the division psychiatrist were inadequate, and it was necessary to evacuate patients who might have otherwise been held and treated at the division. Fortunately, again, the 601st was close behind the division and few salvageable cases were lost. For the most part, psychiatric casualties were of the mild anxiety type with some cases of "old sergeant syndrome." Sobel, the division psychiatrist, noted that, although the troops were fatigued from many days of continuous combat, they continued to advance without showing evidence of low morale. Here it was again demonstrated that advancing victorious troops, even though severely fatigued, had low rates of psychiatric breakdown. This was an additional example that physical fatigue alone, under favorable tactical circumstances, was not associated with increased psychiatric casualties, even in the presence of considerable battle losses.

Another illustration of high morale and low psychiatric rate reported by Sobel during this offensive concerned the 100th Infantry Battalion, an attached unit made up almost entirely of Americans of Japanese ancestry, from the Hawaiian Islands. This unit sustained 109 battle casualties over a 2-week period and had but one psychiatric casualty. According to Sobel, the men of this battalion believed that the reputation and patriotism of Japanese-Americans in the United States depended upon their fighting record and, for this reason, continued to endure combat beyond usual limits. Subsequently, in this unit and in the larger Japanese-American 442d RCT (Regimental Combat Team), also mainly from the Hawaiian Islands, psychiatric casualties were noted to be relatively rare and, when present, were almost invariably unsalvageable due to severe neurosis, usually a major conversion reaction. It seemed necessary for such individuals to have, and to exhibit, an obvious somatic disability as the only honorable reason for removal from combat and to persist in such manifestation with avoidance of insight at all costs.

[23] Essential Technical Medical Data, Mediterranean Theater of Operations, U.S. Army, for February 1945, dated 1 Apr. 1945, Inclosure 5 thereto.

91st Infantry Division.—Since 3 June 1944, combat elements of the newly arrived 91st Infantry Division, attached variously to the 36th Infantry, the 1st Armored, and the 34th Infantry Divisions, had participated in the final phase of the Rome offensive and the rapid advance northward. On 12 July, the 91st Infantry Division was first committed to action as a unit on a line north of the Cecina River. Initially, and for some days, fighting was moderately severe over difficult mountainous terrain. Battle casualties were proportionately high. After the division pushed forward to the Arno River by early August, only patrol activities were carried out until the division was relieved between 15–20 August, and moved to a rest area.[24] Approximately 250 psychiatric casualties and more than 700 battle injuries were sustained during this combat period.

Capt. (later Maj.) Abraham L. Kauffman, MC, had served as the 91st Infantry Division psychiatrist during preparations for overseas movement and in the training period in North Africa. When the division entered combat, Captain Kauffman and two enlisted assistants were attached to the clearing station and given ward space to operate a psychiatric treatment section. He was able to obtain unusual cooperation and support for, at the height of the fighting, three ward tents were utilized for psychiatric casualties and additional ward personnel were furnished by the clearing company. Treatment consisted of sedation when necessary, psychotherapy, and suggestion. After 24 to 48 hours on the ward, patients were transferred to pup tents for 3 to 4 days and assigned routine duties. Under this regimen, approximately 55 percent of the cases were returned to combat duty.[25]

88th Infantry Division.—The 88th Infantry Division [26] was relieved from the rapid phase of the advance north of Rome on 10 June. On 9 July, the division was returned to action in the mountainous Volterra area. Then occurred the most intense combat thus far encountered by the division. The enemy fought stubbornly and with grim determination, and casualties were heavy. Enemy artillery fire was much more severe than previously experienced. Nonbattle casualties attained new high rates, the principal causes being diarrhea and psychiatric breakdown. The division reached the Arno River, west of Florence, late in July, and was relieved on 31 July. During this combat period, the division incurred approximately 1,700 wounded and 564 psychiatric cases, a ratio of 1 psychiatric casualty to 3 battle injuries, indicating a higher rate than usual of psychiatric casualties.

Major Slusky, the 88th Infantry Division psychiatrist, noted that psychiatric casualties in this combat phase were of a more severe type than those encountered during the Rome offensive. He added:

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[24] Letter, Maj. A. L. Kauffman, MC, Division Psychiatrist, Headquarters, 91st Infantry Division, to Surgeon, Fifth Army, APO 464, U.S. Army, 28 May 1945, subject: History of the Psychiatric Service, 91st Infantry Division.

[25] Annual Report, Surgeon, 91st Infantry Division, 1944, p. 8.

[26] See footnote 10, p. 53, which is the source material for this section on the 88th Infantry Division.

> Continued and severe shellfire and "screaming meemies" [mortar fire] produced an anxiety that was not easily cured as long as the threat of returning remained. These patients were tremulous and tense. They would jump at slight stimuli, be dazed, mentally confused, with feelings of intense anxiety and apprehension, and their sleep was disturbed with battle dreams and persistent recollections of traumas. They would develop crying spells, lose their appetites, and have severe heart palpitations, or become depressed and oblivious of everything.

Of 564 psychiatric casualties during the period from 9 to 31 July, only 212 (38 percent) were returned to duty by the training and rehabilitation center of the division. This unit, which had functioned effectively during the previous less severe combat phase, lacked both facilities and personnel to handle the more than doubled caseload of this period. Major Slusky submitted a plan to raise the capacity of the training and rehabilitation center to 100 beds and recommended that the unit have a separate table of organization and table of equipment to include six ward attendants, three clerks, two line noncommissioned officers, and two psychiatric assistants, in addition to the division psychiatrist and an infantry officer.

In essence, Major Slusky recognized the inadvisability of attaching the training and rehabilitation unit to the clearing company under the command of a line officer. The training and rehabilitation center was in fact a psychiatric treatment unit in which the important decisions, that is, admission, return to duty, and evacuation, were of a professional nature and could be made only by the psychiatrist. For optimum function, the training and rehabilitation center needed to have autonomy of operation from the clearing station, whose frequent moves, for tactical or other reasons, interfered with the holding and treatment mission of division psychiatry. Moreover, experience indicated that the training and rehabilitation center should have facilities and personnel to house and treat a minimum of 100 psychiatric casualties. Intense battle episodes involving a single division produced from 50 to 80 psychiatric casualties per day. These acute cases are usually readily salvageable at the division level. Further evacuation sharply decreases the potential for recovery, as exemplified by the 88th Infantry Division experience in which only one of five patients evacuated to the experienced and competent 601st was returned to combat duty.

This second and more traumatic combat period of the 88th Infantry Division, similar to that of the 85th Infantry Division during the Rome offensive, demonstrated again that the initial severe battle exposure of troops is more likely to produce greater numbers of psychiatric casualties with more severe manifestations than subsequent combat experiences of the same or greater intensity. One may argue that a certain degree of adaptation to battle stress occurs as a result of severe battle exposure, or that such traumatic experiences eliminate the weaker or more predisposed individuals and leave a stronger group more resistant to psychiatric breakdown. It is probable that both of these mechanisms are operative. Combat

troops readily admitted that technical competence in combat develops quite rapidly, but almost uniformly denied that one becomes "used to" or "immune from" battle fear by continued participation. Also, there are fearful persons who are apparently incapable of adjustment under battle conditions and whose removal is usually welcomed by the combat group. However, other reasons for lower psychiatric rates in veteran combat units lie in the elimination of less effective leaders who become more clearly identified under severe battle conditions and in sustaining or protective powers of group cohesiveness and group identification which arise as men live and fight together through repeated episodes of travail and danger.

85th Infantry Division.—After being relieved from action on 10 June, the 85th Infantry Division remained in a rest area, reequipping and training. Although artillery units were committed to action at various times, the division as a whole did not return to active combat during this period except for 12 days of defensive activity in August along the Arno River, which produced few casualties.

On 1 July 1944, the author (A.J.G.) replaced Major Messinger as division psychiatrist. Arrangements were made to enlarge division psychiatric facilities to 100 beds. Informal discussions on combat psychiatry were held with all division medical officers who were urged to treat mild exhaustion cases at or near the battalion aid stations, when feasible. Out of these discussions, Maj. (later Lt. Col.) Charles E. Myers, MC, Regimental Surgeon, 337th Infantry Regiment, agreed to establish an intraregimental treatment program for mild psychiatric casualties (see pp. 78–79).

On 1 August, two junior infantry officers and two infantry noncommissioned officers were added to the psychiatric staff of the 85th Infantry Division, and a division training and rehabilitation center was established. This unit, under the supervision and control of the division psychiatrist, was attached to a clearing station for administrative and messing facilities. The treatment program was altered to include 2 days of rest and recuperation and 2 days of training activities.

For some time, psychiatrists and other medical officers had observed the frequent evacuation of combat personnel to rear hospitals for ill-defined conditions manifested mainly by complaints related to painful wound scars, residual symptoms from old injuries, flat feet, backache, sinusitis, chest pain, and upper gastrointestinal discomfort. At the hospital, clinical and laboratory findings usually revealed that these individuals had a major "functional" component with little incapacitating disease. By this time, however, from 4 to 6 weeks had elapsed, gain in illness had caused a fixation of symptoms, and return to combat duty was strongly resisted.

Most of these patients were retained in the division, even though many were reclassified to limited service. They continued, however, to be pre-

occupied with bodily symptoms and considered themselves unjustly treated. Almost inevitably, these soldiers became chronic complainers, functioned poorly, and were eventually evacuated medically.

In addition, patients in hospitals, recovering from wounds or disease, frequently protested their imminent return to combat duty because of persistent residual discomfort. Often, the hospital medical officer, to placate the protesting patient, advised: "Try it again and if you have any trouble, see your battalion surgeon." This kindly maneuver obviously reinforced the individual's belief that he had valid medical reasons for being withdrawn from combat duty. Thereupon, promptly upon return to the division, he called upon the battalion surgeon, who was understandably mystified and annoyed as to why he was being referred such a diagnostic problem when the individual had just returned from the hospital that was far better equipped to evaluate and investigate symptoms. Especially irksome was the redundancy of the advice to see the battalion surgeon since the soldier knew quite well whom to see if symptoms recurred.

In an effort to decrease the manpower loss through such quasi-organic problems, Headquarters, 85th Infantry Division, established a medical disposition board at the clearing company. The board was composed of all medical officers of the clearing company, with the commanding officer or the executive officer of the medical battalion as the president, and the division psychiatrist as the recorder. All ill-defined cases were evaluated at the clearing station as to the necessity for further evacuation. Doubtful cases were referred to the training and rehabilitation center for several days to obtain an objective opinion as to limitations of physical performance and an evaluation by the division psychiatrist.

The division psychiatrist called board meetings as often as needed, handled all correspondence and records, and submitted monthly reports of the board's decisions to the Commanding General, 85th Infantry Division.

During a 10-day period, 22–31 August 1944, the disposition board considered 25 cases: 16 of the patients were returned to duty, four were recommended for reassignment with the division (accomplished by division classification officers), two were evacuated to the 3d Convalescent Hospital for reclassification to limited duty, and three were evacuated to nearby medical installations for further clinical investigation. This program insured that the patient would receive a careful evaluation and examination of his complaints. Yet firm and early decisions could be made that prevented unnecessary hospitalization and its inevitable gain in illness. Since the largest proportion of such ill-defined problems occurred during periods of relative inactivity, the holding and evaluation of patients did not interfere with normal combat functions of the clearing station and even served as useful professional stimulation for the participating medical officers.

At Army level

Neuropsychiatric consultant.—During this period, the psychiatric services at Fifth U.S. Army level were strengthened and refined. In early July, Maj. (later Lt. Col.) Calvin S. Drayer, MC, was attached to the Office of the Surgeon, Headquarters, Fifth U.S. Army, as neuropsychiatric consultant on the basis of his earlier services in this capacity on an informal basis.[27]

With some official status, the Fifth U.S. Army consultant in neuropsychiatry was now able to travel freely through the army area, during almost the whole last year of the campaign, and support the various division psychiatric programs. He was thus able to keep the Surgeon, Fifth U.S. Army, informed of psychiatric problems as they developed, and psychiatric services could be better coordinated.

Neuropsychiatric reports.—On 10 March 1944, the Surgeon, Fifth U.S. Army, had established a special semimonthly divisional neuropsychiatric report. On 28 August 1944, the Fifth U.S. Army consultant in neuropsychiatry modified this report to include, in addition to neuropsychiatric evacuation, neuropsychiatric admissions to divisional clearing stations. In the final form, each report was required to include the following statistical summary:

Remaining from last period _____

Total admissions _____

Total _____

Duty _____

Evacuated _____

Remaining _____

Total _____

Recurrences _____

Medical consultations _____

Disciplinary consultations _____

Recommendations for discharge:

---under AR 615–368 _____

---under AR 615–369 _____

As these reports were received in the surgeon's office, the figures were translated into graphs (see chart 1, p. 109), to facilitate understanding

[27] Actual assignment was not possible until 6 March 1945. The original table of organization vacancy for a psychiatrist in the Office of the Surgeon, Fifth U.S. Army, was said to have been given to another section in headquarters, to permit enlargement of this other section. The importance of consultants in the Office of the Surgeon had not been clearly recognized when the Fifth U.S. Army was organized. This defect was corrected after General Truscott assumed command of this army late in 1944.—C. S. D.

of the neuropsychiatric situation in the Fifth U.S. Army at any period and to provide means of comparing the results of the psychiatric programs of the various divisions of the Army.

Limited service at Army level.—On 28 May 1944, the Surgeon, Fifth U.S. Army, in a memorandum to the Assistant Chief of Staff, G–1 (personnel),[28] proposed that more of the psychiatric casualties be retained for temporary assignment within the army area, even if they were not immediately fit to return to active duty. These men were then to be reviewed in 3 months at the request of the unit to which they were attached, to be returned to combat duty, if possible. Thus, the likelihood of their anxiety's becoming fixed would be reduced by removing them as promptly as possible from medical channels. Late in July, the 3d Convalescent Hospital was authorized to recommend such men for limited service ("B" duty) in the army area after psychiatric evaluation at the 601st.[29]

NORTHERN APENNINES CAMPAIGN

Topography and Tactical Considerations [30]

By mid-August 1944, the Allied armies in Italy were halted for rest and regrouping at the Arno Line. The British Eighth Army was positioned generally east of Florence to the Adriatic, while the Fifth U.S. Army held the sector west of Florence to the Ligurian Sea; both armies had outrun their supplies. In the main, troops were weary after 3 months of continuous fighting, and the effective strength of the Fifth U.S. Army had been more than halved to build up the Seventh U.S. Army for the invasion of southern France. However, the strongest enemy positions in Italy, the Northern Apennines, still lay ahead, blocking access to the rich Po Valley.

The Northern Apennines form a rugged mountain barrier about 50 miles wide, extending northwest from the Adriatic coast across the Italian peninsula and studded with peaks of 3,000 to over 6,000 feet (map 9). The northern slopes are relatively easy grades, while the southern slopes, which then faced the Allied armies and contained the Gothic Line, are steep and difficult. The Gothic Line, begun in the winter of 1943–44, was anchored near the Ligurian Sea at Massa and extended roughly 170 miles southeast to Pesaro on the Adriatic. Roads across the mountains were few and torturous, the best being Highway No. 65 which connected Florence with Bologna, 70 miles to the north. The road was paved and grades were less steep than those on Highway No. 64, a few miles farther west. Highways Nos. 6524 and 6521, somewhat east of Highway No. 65, were steep and winding secondary roads. The scarcity of roads made it possible for the Germans to concentrate their defenses. The strong points were astride

[28] History, Fifth Army Medical Service, 1944, p. 56. [Official record.]
[29] *Ibid.*, pp. 56–57.
[30] Wiltse, *op. cit.*, pp. 415–418.

MAP 9.—Northern Apennines, 18 September 1944.

the highways connected by a series of dug-in gun emplacements, log and concrete bunkers, and fortified trenches. The weakest point, topographically, in the Gothic Line was Futa Pass where Highway No. 65 crossed the divide at an elevation of only 2,962 feet. The strongest fortifications were at this point, running southeast to Il Giogo Pass on Highway No. 6524.

On 25 August 1944, the British Eighth Army went on the offensive and, by 6 September, had broken through the Adriatic anchor of the Gothic Line almost to Rimini, but its advance was halted by heavy rain and increased enemy resistance from reserves and divisions shifted from the Fifth U.S. Army front. On 31 August and 1 September, Fifth U.S. Army elements crossed the Arno as the Germans began to pull back to prepared positions of the Gothic Line. During the next 10 days, the Fifth U.S. Army advanced with relatively few casualties to the lower slopes of the Northern Apennines, some 10 miles north of the Arno River, and by 12 September, leading elements were in contact with the outer defenses of the Gothic Line.

Gothic Line Offensive (13 September–26 October 1944)

II Corps, which included the 34th, 85th, 88th, and 91st Infantry Divisions, was selected to spearhead the Fifth U.S. Army offensive and breach

the Gothic Line at the Il Giogo Pass. On 13 September, the 34th, 85th, and 91st Infantry Divisions attacked on a narrow front which included Highways Nos. 65 and 6524.

After 5 days of violent fighting and heavy casualties, the 85th Infantry Division seized Mount Altuzzo (fig. 7) and the 91st Infantry Division captured Mount Monticelli. Thereby, they secured the dominant heights of the Il Giogo Pass. Thus, the Gothic Line was broken on a 7-mile front. The strategic crossroads town of Firenzuola, several miles north of the Il Giogo Pass on Highway No. 6524, fell to the 85th Infantry Division on 21 September. Meanwhile, the 34th Infantry Division had exerted constant pressure in the area to the left of Highway No. 65 to keep the enemy from shifting forces to the Il Giogo battle.

On 21 September, the 34th Infantry Division also broke through the Gothic Line to the west of Futa Pass, which became untenable and fell on 22 September to the 91st Infantry Division. The fresh 88th Infantry Division passed through the 85th Infantry Division, then attacked along Highway No. 6528 northeast down the Santerno Valley toward Imola, the shortest route to the Po Valley. But the Santerno Valley defenses proved

FIGURE 7.—Collecting point at partially demolished house on Mount Altuzzo.

impregnable even though the 88th Infantry Division seized the commanding heights, Mounts Protolungo, Battaglia, and Capello. Between 21 September and 3 October, the 88th Infantry Division lost 2,105 battle casualties, almost as many as the whole of II Corps had sustained in breaching the Gothic Line.

As the Santerno Valley attack stalled, emphasis was shifted to the Highway No. 65 sector, where the 34th, 91st, and 85th Infantry Divisions continued to advance. At the end of September, the Fifth U.S. Army had progressed an average of 10 miles beyond the Gothic Line. But the fall rains had begun, roads had turned to mud trails, supply lines had become increasingly difficult to maintain, and the troops were weary and discouraged from continuous and bitter mountain fighting.

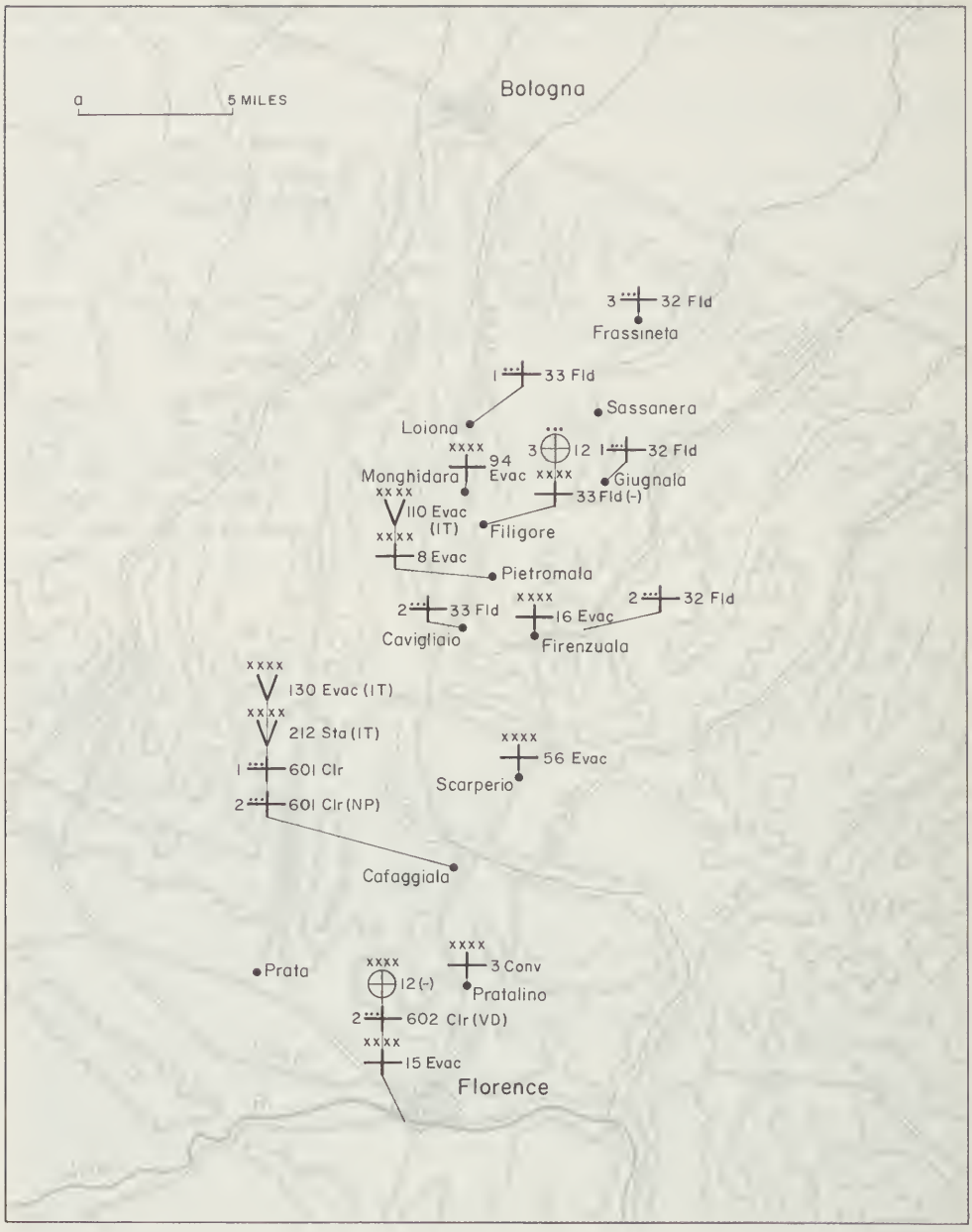
On 1 October, the II Corps launched a drive toward Bologna, 24 miles away, with the 34th Infantry Division to the left, the 91st Infantry Division astride Highway No. 65, and the 85th Infantry Division to the right. Despite cold weather, driving rain, and fog, the Monghidoro defense line was overrun by 4 October and the Loiano Line, by 9 October. However, rain, mud, casualties, and fatigue were taking their toll; also the enemy's resistance was steadily stiffening as the drive neared Bologna, his major supply and communications center.

For the next phase of the drive, the II Corps front was further narrowed, and the 88th Infantry Division, relieved from the Santerno Valley sector by British troops, joined the attack. The objective, the Livergnano Line, was overrun by 15 October, but again the pace was slow and casualties were heavy and cumulative. For the 6-day period, 10 through 15 October, the II Corps lost 2,491 battle casualties. Total battle casualties since 1 October were 5,699 and since the beginning of the offensive, 12,210. Replacements were insufficient and inexperienced. To personnel shortages were added general fatigue, muddy and mountainous terrain that restricted the movement of supplies and the mobility of artillery, and adverse weather that prevented effective air support. For another week, the II Corps struggled forward against increasing opposition. The last straw was added on 26 October when torrential rains washed out roads and bridges. So, with Bologna still 9 heartbreaking miles away and the Po Valley visible in rare intervals of clear weather, the II Corps was ordered to fall back to defensible positions and dig in [31] (map 10).

Maturation of Division Psychiatry

Understandably, psychiatric casualties were numerous during this prolonged combat period of heavy battle losses, adverse conditions of weather and terrain, and indecisive outcome. However, division psychiatry had matured and come of age. All the involved division psychiatrists had

[31] Wiltse, *op. cit.*, pp. 419–422.



MAP 10.—Fifth U.S. Army hospitals, the Gothic Line offensive, 25 October 1944.

experienced previous combat periods, were well accepted by senior line and medical officers, and had established adequate intradivision holding and treatment facilities. Indeed, in this campaign, division psychiatry in the Mediterranean theater reached its peak of effectiveness in the conservation

of combat manpower. Training and rehabilitation centers were operational in the 34th and 85th Infantry and 1st Armored Divisions, in addition to the previously established center of the 88th Infantry Division. Only the 91st Infantry Division still utilized the clearing company in the treatment of psychiatric cases, but here the division psychiatrist received unusual support and cooperation in obtaining the necessary holding facilities and additional personnel. While the various division psychiatry programs functioned similarly and had similar experiences during this campaign, there were important differences by virtue of unique circumstances or innovations that were made by several division psychiatrists.

34th Infantry Division.—Perhaps the most elaborate of the division training and rehabilitation centers (fig. 8) was established by the 34th Infantry Division, which became operational on 12 September. As in other divisions, the center was usually located in the vicinity of the clearing station. Psychiatric cases, including also such vague entities as "ill defined condition" or "sacroiliac sprain," were first admitted formally to the clearing station. After admission, patients were walked or brought by ambulance to the center, where they were promptly examined by the psychiatrist to screen out and evacuate to the 601st those individuals considered clearly unsalvageable for combat duty; that is, those exhibiting severe anxiety states, psychoses, pseudopsychotic reactions,[32] "old sergeant syndromes," or gross hysterias. The remaining cases, including mild and moderate anxiety states, terror-stricken replacements, somatic reactions, and all others, were held at the center for a minimum of 5 days' treatment.

As in other training and rehabilitation centers, the first 2 days were

[32] "Pseudopsychotic" was a term commonly used by psychiatrists in the Mediterranean theater to categorize acute transient psychotic disorders arising out of combat situations. The prefix "pseudo" was not meant to imply that psychotic symptomatology was untypical, different, or hidden, but rather that its duration was quite brief (1 to 3 days) and only on this basis could be distinguished from the usual clinical picture of psychosis. The need for such a diagnostic term arose for reasons of prognosis which had an important bearing on treatment and disposition. It should be recognized that true psychoses (mainly schizophrenia) did appear occasionally during combat. Thus, it was necessary to differentiate severe combat mental disorders which had a favorable prognosis from schizophrenia or other psychoses. Pseudopsychotic reactions were roughly of these types:

1. Overactive-tremulous: Excited behavior in which the individual reacted to even minor noise stimuli as if he were still in combat by frantically clutching or digging into the ground or running about wildly.

2. Underactive-retarded: Mute, or unresponsive, behavior easily aroused to overactivity by combat noise or stimuli.

3. Paranoid-frightened by oriented soldiers with mainly auditory hallucinations involving condemnatory voices of dead buddies, God, the Devil, et cetera; also at times a conviction that others were plotting against them—all these manifestations relative to events and behavior in combat. Occasionally, there were individuals who insisted that family members or other significant persons were nearby by virtue of hearing their voices.

Pseudopsychotic reactions were relatively uncommon, representing usually not more than 1 percent of psychiatric casualties, occurring more frequently from troops new to severe battle but almost nonexistent in combat veterans. Characteristically, pseudopsychotic disorders exhibited considerable "free floating" anxiety. It seemed as if the level of anxiety had reached such proportions as to induce a psychotic defense or adaptation. After 1 to 3 days, these cases reverted to the familiar picture of tremulous, moderate anxiety state. Pentothal abreaction would not often produce improvement, and one needed assistance at times to control physically the overactivity that was often produced by stimuli and other efforts to suggest the subject back into the traumatic combat situation. Regardless of improvement, these men could not be returned to combat duty as a recurrence of severe symptoms was inevitable. It is likely that pseudopsychotic reactions would be diagnosed now as "dissociative reaction." During the Korean War, they were merely designated as "severe combat exhaustion."—A. J. G.

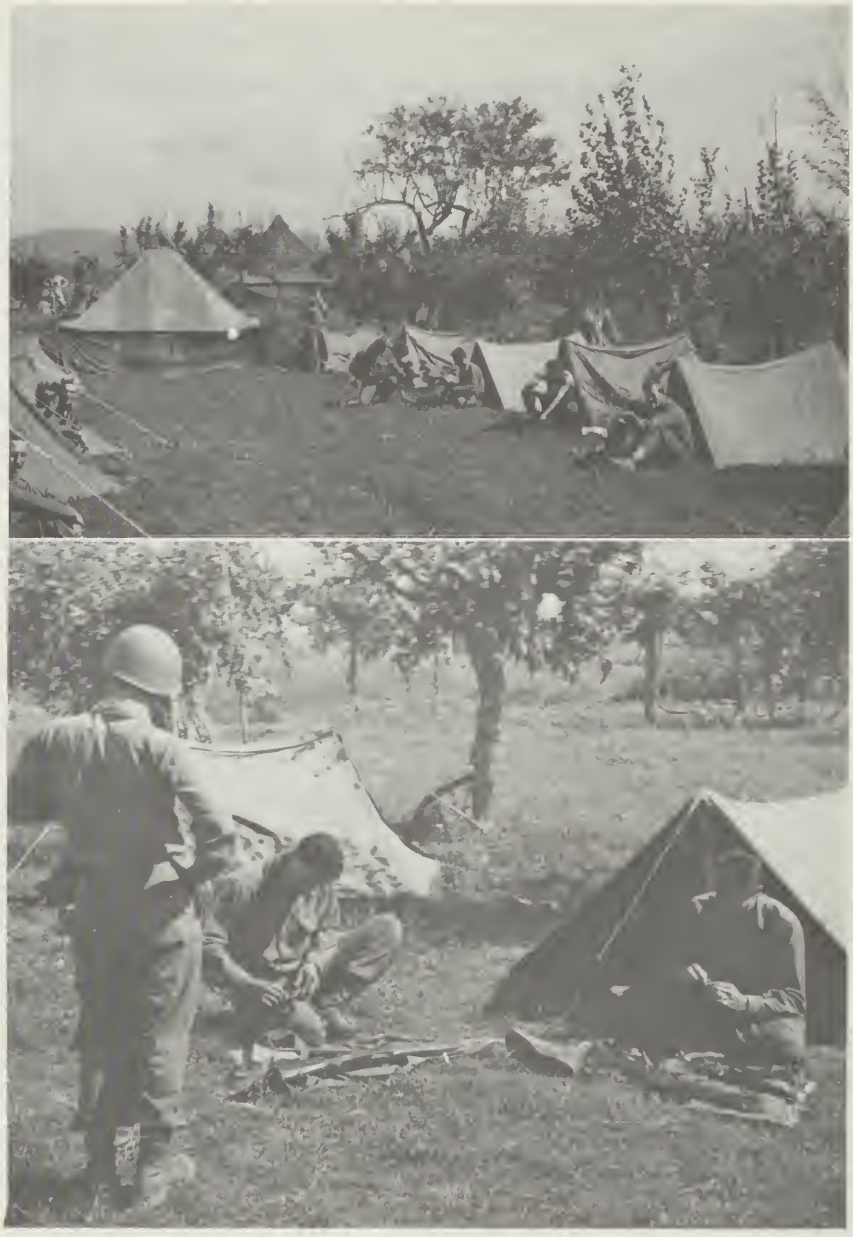


FIGURE 8.—Training and Rehabilitation Center, 34th Infantry Division, September–October 1944. (Top) Military living conditions. (Bottom) Military activity.

allotted to sleep, rest, and other recuperative measures (food, showers, shaving, and so forth), after which patients were placed in an active reconditioning program. This included daily calisthenics, close order drill, and road and cross-country marches. Each subject received individual instruction in firing the M–1 rifle, day and night patrolling, and other battle training. Sobel noted that the training sergeants, all with considerable combat experience, were excellent psychotherapists whose share in bringing their soldiers back to combat efficiency should not be minimized.[33]

On 22 September, the 34th Infantry Division ordered all returnees from hospitals to be processed through the training and rehabilitation center to insure physical fitness for combat duty. Men found fit for full duty were sent promptly to their units; others requiring further medical examination, reconditioning, or reevaluation were handled accordingly. Sobel reported that the presence of convalescent patients fostered a return-to-duty atmosphere at the training and rehabilitation center, which favorably influenced the psychiatric casualties who were intermingled with the hospital returnees in the reconditioning program. With this additional responsibility, the center required more personnel, who were again selected from the veterans or "old men" of the division.

In the training and rehabilitation center, patients were housed in pyramidal tents during the rest period and in pup tents in the training phase. The center had its own messing facilities and a supply section capable of completely reequipping each man returned to duty. Patients were returned to duty through the Regimental Service companies who sent transportation for their men. Sobel found that the training and rehabilitation center made possible a higher rate of duty dispositions (40 to 50 percent) than previous operational procedures (20 to 30 percent). Of 346 psychiatric casualties incurred during this offensive period, 134 were returned to duty by the training and rehabilitation center. The battle casualties, although more than 1,600, were significantly fewer than in other divisions in the II Corps offensive.[34]

91st Infantry Division.—For the 91st Infantry Division, the Gothic Line offensive constituted its first prolonged, severe combat exposure; more than 2,700 battle casualties were sustained, exclusive of killed or missing in action. As a consequence, psychiatric casualties were heavy—520 in September and 399 in October, for a total of 919 [35]—a high ratio of 1 psychiatric casualty to 3 battle casualties (average—1 neuropsychiatric casualty to 4–5 battle casualties). Major Kauffman, the division psychiatrist, reported that 175 of the 919 psychiatric evacuees were considered purely cases of physical exhaustion from continuous fighting in rain, mud, and cold. The large caseload placed a great strain on available facilities and personnel. However, during these 2 months, only 10 cases were evacuated

[33] Psychiatric History, 34th Infantry Division, pp. 9–11.
[34] See footnote 23, p. 62.
[35] See footnote 23, p. 62.

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for lack of space, owing to the splendid cooperation of the clearing company in providing holding facilities.

Again, as expected with troops new to severe combat, Kauffman noted:

> * * * numerous cases of acute panic reactions with vague and fleeting hallucinations and delusions were seen. These "pseudopsychotics" constituted a severe nursing and therapeutic problem. Intravenous Sodium Pentothal [thiopental sodium] and Sodium Amytal [amobarbital sodium] therapy was used extensively, with good therapeutic results in a majority of these cases. Most of them, however, were considered ineffective for combat duty and eventually evacuated. Only a few were returned to duty.[36]

Kauffman also reported that many gross conversion reactions were seen, a common finding in troops new to severe battle. Most of these cases were hysterical aphonias and hysterical paralyses, with a few instances of hysterical blindness, all of which responded favorably to narcosynthesis. There were numerous admissions for concussion, but Kauffman found no cases of true cerebral concussion in this group.

The concept of shellshock died hard in World War II, for psychiatric casualties and observers of combat, including battalion surgeons, were easily convinced that there must be a physical cause-and-effect relationship between the dreaded and lethal shellburst which could be readily seen, heard, and felt, and the prompt emergence of a trembling dazed casualty. The scientific term "concussion" in World War II was in part a substitute for the discredited and banned diagnosis "shellshock" of World War I that satisfied a need for a more acceptable organic etiology of the war neuroses, particularly in those cases with hemorrhage or rupture of an eardrum, which was concrete evidence that airblast had damaged the head and thus the brain. To some degree, the insistence upon physical fatigue as the major cause for exhaustion casualties was dictated by the same desire to avoid obvious but unacceptable social and psychologic aspects, in order to confer an honorable status upon these victims of modern warfare. Such a viewpoint was not without its practical benefits, for greater cooperation and interest in providing treatment facilities could be obtained from responsible line and medical authorities by placing less emphasis upon psychologic failure and its inevitable morale implications.

The results of intradivision psychiatric treatment in the 91st Infantry Division during this period (1 September–31 October 1944) were as follows: Of 919 cases, 513 (56 percent) were returned to combat duty—a tribute to the effectiveness of division psychiatry when adequate holding and treatment facilities were made available. However, it should be recognized that the 91st Infantry Division during this period had a large proportion of mild or reversible psychiatric casualties. Experience indicates that the best results of forward psychiatric treatment are obtained in fresh or acute psychiatric casualties, particularly those cases with a considerable element of physical fatigue, which component can be readily alleviated. The more

[36] See footnote 24, p. 63.

veteran combat units, such as the 34th Infantry Division, generally had a low incidence of psychiatric casualties in which there was a higher proportion of chronic anxiety syndromes than in new divisions by virtue of the presence of more men who had been repeatedly exposed to combat. Such chronic exhaustion cases were less susceptible to improvement by brief treatment techniques.

88th Infantry Division.—The 88th Infantry Division sustained significantly more battle losses than other divisions in this offensive period. More than 3,600 wounded were incurred with 817 psychiatric casualties, a normal ratio of 1 psychiatric casualty to 4.4 battle casualties.[37] As would be expected with a division in its second severe combat experience and third combat period, "there were noticeably fewer occurrences of the more intense emotional disturbances than in the previous action," and "the 'old sergeant syndrome' with no overt anxiety, but declared intolerance of the battle situation after considerable combat, was noticed in comparative frequency." [38]

Of the 817 psychiatric casualties, 387, or 47 percent, were returned to duty by the division training and rehabilitation center, by utilizing the procedures and techniques previously described. Slusky surveyed 341 psychiatric evacuees in terms of the number of combat days that were experienced before breakdown, with the following results: [39]

Combat days	*Number of evacuees*
0–25 days	118
25–50 days	33
50–75 days	30
75–100 days	25
100–125 days	41
More than 125 days	94
Total	341

From this information, Slusky concluded that the majority of psychiatric casualties originated from the "new" men and the "old" men of the division. While this study lacked control data, that is, the proportion of "new" and "old" men in the division at the time of the study, it is noteworthy that Sobel and other division psychiatrists came to similar conclusions. Also, Kauffman [40] reported that 70 percent of the psychiatric casualties came from the replacement group.

In this difficult period of the Gothic Line offensive, Slusky reported somewhat discouragingly that "the prolonged and intense combat with the constant replacement of personnel and command, frustrations in advancing on objectives, * * * fewer 'old men' in the group produced a weakening

[37] See footnote 23, p. 62.

[38] See footnote 10, p. 53.

[39] Letter, Maj. Joseph Slusky, MC, to Surgeon, Headquarters, NATOUSA, 10 Nov. 1944, subject: Evaluation of Neuropsychiatric Work, October 1944.

[40] See footnote 24, p. 63.

of morale factors." He also noted that "many exhaustion casualties were suffering from no significant disease but poor motivation, and a number of malingerers and mild psychoneurotics were admitted." [41]

1st Armored Division.—The 1st Armored Division saw relatively little intense combat during this period. Serving as a mobile reserve to exploit any breakthrough onto the plain, the division performed a holding and patrolling mission.[42] At various times, elements of the division were committed in a supporting role. More than 250 battle casualties were sustained. Of the 137 psychiatric patients evacuated to the division training and rehabilitation center, 93, or 68 percent, were returned to duty.[43]

85th Infantry Division.—From 13 September to 22 November 1944, the 85th Infantry Division sustained more than 4,000 wounded and 555 psychiatric casualties of whom approximately 50 percent were returned to duty.[44] This was a ratio of 1 psychiatric casualty to 7.2 battle casualties. The rate, however, did not include 42 patients returned to duty by a regimental exhaustion unit of the 337th Infantry Regiment and thus never evacuated to the division training and rehabilitation center.

The program at this treatment facility, an innovation in combat psychiatry, was initiated on 19 August 1944 by Major Myers of the 337th Infantry Regiment.

The treatment "exhaustion" unit was located at the service company, where messing facilities and clothing exchange were readily available. The unit was under the direct control of the regimental dental surgeon (Capt. Theodore F. Hasbrouck, DC) and was supervised by the regimental surgeon. Major Myers [45] described the operation of his "exhaustion unit" as follows:

* * * * * * *

2. Our purpose has been to recondition combat casualties who have suffered mild nervous exhaustion and would have otherwise been evacuated to a clearing company and lost to the unit.

3. Cases are selected by our battalion surgeons. Those coming to our unit generally meet the following standards:

(a) They have never been previously evacuated to a hospital or clearing company for exhaustion or for any type of psychoneurosis.

(b) Physical exhaustion is the primary factor producing their difficulties.

(c) They do not present any of the more severe signs such as purposeless movements, involuntary tremors, depressions, or schizoid tendencies.

(d) They may, however, be dazed and engaged in abstraction.

(e) They are capable of being evacuated as walking wounded.

4. Because of evacuation problems, we have had to consider most of our cases as

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[41] See footnote 10, p. 53. While Major Slusky's observations were undoubtedly valid, it should be recognized that he, like other division psychiatrists, preoccupied with seeing mainly failures in adaptation and deeply involved in motivation problems, was apparently unaware that the division as a whole had comparatively good morale as evidenced by a relatively low incidence of psychiatric casualties during this most traumatic time.—A. J. G.

[42] Wiltse, *op. cit.*, p. 421.

[43] See footnote 23, p. 62.

[44] See footnote 12, p. 54.

[45] Letter, Maj. Charles E. Myers, MC, to Division Neuropsychiatrist, 1 Nov. 1944, subject: Treatment of Early Exhaustion in Combat.

walking wounded, thus making early sedation impossible. Very few cases reach our unit under influence of a soporific, but this had not seemed to deter from their subsequent recovery.

5. On admission the patient is immediately placed on a litter, made comfortable, and given at least 6 grains of Sodium Amytal. No attempt is made to convince him that he is ready for duty—we simply make no response to any statements that he might make concerning his inability to ever go back. Every attempt is made, however, to assure the patient that he has nothing to worry about. This is done both by conversation and by the general appearance of the Exhaustion Unit itself. If the patient is very hungry and desires hot food, this is brought to him promptly.

Sufficient sedation is given the patient to produce a sound and prolonged sleep and a period during which complete awareness of surroundings is obliterated. The total time we strive for is roughly 24 hours. The average amount of Sodium Amytal given during this period is 9 grains, with totals ranging as high as 15 grains. Many times severe headaches are prominent complaints, and we administer 10 grains of ASA, 10 grains of sodium salicylate, ½ grain codeine sulfate along with the Amytal. Smaller doses have proven insufficient, and total relief is of primary importance.

After 12 to 18 hours most of our patients show favorable response. We encourage them to go to their meals, but do not force them to do anything. After about 24 hours, the patient begins to take an interest in what is going on around him, and is given reading and writing material. He is given a complete change of clothing, hot water for shaving and bathing, and is made ready for return to duty. After 48 hours the return to duty is tactfully suggested to him and in most cases he is ready and willing to give it a try. If no visible improvement has occurred at the end of 48 hours, the patient is evacuated through regular channels.

Major Myers also pointed out that men treated in the regimental exhaustion unit were not carried as patients, but placed administratively on special duty with the service company during their brief stay. Of the 67 under treatment from 19 August to 30 October 1944, 42 (63 percent) were returned to their combat units.

It is evident that the 337th Infantry Regiment program took advantage of a familiar technique commonly used by experienced battalion surgeons: sending the mild and mainly exhausted psychiatric casualty to the nearest relatively safe location, usually the rear kitchen area, for 24 hours of sleep and rest. Unfortunately, however, there was generally no control of these men and too frequently the kitchen or similar area became an undesirable straggler's point from which AWOL's (absent without leave) originated. The 337th Infantry Regiment treatment unit performed a similar recuperative function but under controlled conditions.

Because of the emphasis placed on sleep and rest by the regimental treatment unit, it is of some historical importance to consider again the role of physical fatigue in the causation of combat psychiatric breakdown. It is well known that physical fatigue produced by pleasurable activities, such as sports, recreational pursuits, or gratifying work, is not associated with anxiety or undue tension. Indeed, such tiredness is commonly experienced subjectively as pleasant and relaxing. Conversely, even mild physical exertion under harassing or hazardous conditions rapidly tires the individual, seemingly from the excessive expenditures of "nervous" energy,

and is associated with tension and other depressive manifestations. Thus, the two causes for disabling feelings of fatigue are physical activity and psychic stress.

In combat, both causes are operative. The physically weary combat participant with little of the "nervous component" of fatigue may be irritable, hostile, or apathetic, but he is not particularly jumpy or apprehensive. Such soldiers are notoriously able to doze under almost any circumstances, even when walking, standing, or lying in most uncomfortable positions. Indeed, it is difficult to keep them awake, except when there are realistic stimuli of actual combat.

Conversely, individuals whose fatigue has a large "nervous" element are apprehensive, tense, cannot readily sleep under danger conditions, become steadily less effective, and seek help. Such soldiers are incipient psychiatric casualties. Unless relieved and rested, they become less and less effective and are quite susceptible to acute breakdown under conditions of severe combat. However, almost all combat participants require periodic rest and recuperative periods to maintain effectiveness. Those with a larger "nervous" element come to this end stage sooner. Perhaps future neurohumoral research may explain the "nervous" cause of fatigue on a physiologic basis. At any rate, treatment at the incipient stage which alleviates fatigue can be quite effective, particularly if accomplished under such conditions as established by the 337th Infantry Regiment "Exhaustion Unit," where there is little or no gain in illness. Also, at the exhaustion unit, return to combat was assumed and not an issue for discussion, except at the end of the rest period when the subject was reminded that it was time to rejoin his unit.

Initially, in the offensive, the training and rehabilitation center was located at the clearing station, under direct observation from the enemy-held heights of the Gothic Line and ringed by constantly firing friendly artillery. Soon there was heard the familiar whine of shells incoming on nearby targets. The effect on psychiatric casualties under treatment was most unfavorable. Mild anxiety states became severe, and heavy sedation was required. Available treatment personnel were insufficient to feed and care for the 50 to 100 patients. Moreover, there was the realistic danger that the clearing station area could be shelled even if inadvertently, and the protection of drugged patients is a difficult logistic problem. For these obvious reasons, the training and rehabilitation center was moved to a safer location rearward. A prompt, favorable reaction occurred: patients required little sedation, and the training phase of the program could be implemented. For the remainder of the offensive, the training and rehabilitation center operated separately from the clearing station.

The experiences just described confirmed previous impressions that forward psychiatric treatment could not be carried out effectively when patients were exposed to actual hazardous conditions. Sobel reported a

similar episode with the training and rehabilitation center of the 34th Infantry Division which became the target of enemy shellfire. He stated that, when this incident occurred, "it was two days before all the patients came out of the hills." [46] Experience at the Anzio beachhead psychiatric center indicated that less effective results were obtained from patients who were unprotected from enemy shellfire.

The often repeated slogan of combat psychiatry, "treatment as far forward as possible," or insistence that treatment be performed within the sound of gunfire, should not be interpreted too literally. In truth, the psychiatric casualty must be given a brief respite from the actual dangers of combat in order to permit a resurgence of previous sustaining powers. Such relief may be only relative as regards danger but must be appropriate as perceived by the combat soldier.

An aid station only 500 yards to the rear of the battleline, but dug in and protected by defilade, is considerably less hazardous than participation in battle. Rest at such an aid station, if space permits, is regarded as a realistic respite from danger, even though there may be constant battle noise and an ever-present possibility of being hit by enemy fire. The clearing station, generally several miles to the rear of the aid station, is considered by the combat participant to be almost out of the war. Thus, he is unprepared for danger at this rear level, which also usually has little of the field protection with which he is familiar. Understandably, treatment at the clearing station under the threat of shellfire offers little relief from danger to the psychiatric casualty. In fact, patients became irritated and angry under these circumstances. The psychiatric casualty, a combat soldier, cannot find any logical reason for such unnecessary exposure. He loses confidence in the treatment personnel, who seem to know so little about combat as to be unaware of the presence of realistic danger. One can hardly explain this reaction of psychiatric casualties on a neurotic basis!

Events at Army Level

Training film.—At the suggestion of Maj. (later Lt. Col.) Frederick R. Hanson, MC, the Mediterranean theater consultant in neuropsychiatry, the Surgeon, Fifth U.S. Army, on 23 July 1944, through channels to The Adjutant General, War Department, requested authorization to procure "a sound motion picture suitable for use as a training film or film bulletin on the subject 'Neuropsychiatric Battle Casualties.'" This authorization was obtained, and in October 1944, documenting films with sound were taken by the Signal Corps on location at the training and rehabilitation center of the 34th Infantry Division and at the 601st. Of particular interest and value were the unrehearsed interviews with actual patients which were recorded under field conditions.

[46] Psychiatric History, 34th Infantry Division, p. 10.

Major Drayer and Capt. (later Maj.) Stephen W. Ranson, MC, were returned to the United States during January and February 1945 to edit these films, which emerged shortly thereafter as Film Bulletin 184, "Psychiatric Procedures in the Combat Area." Because this film showed actual patients, its distribution and use have had to remain restricted. A reenactment with professional actors, however, became the combat sequence in the film, "Shades of Gray," which was made after World War II to tell the whole story of psychiatric services in the Army during the war.

Gastrointestinal center established.—On 4 October 1944, the chief of the medical service at the 3d Convalescent Hospital reported to Major Drayer an unusually high incidence of cases in which psychosomatic problems were conspicuous. Additional psychiatrists were, therefore, temporarily attached to the 3d Convalescent Hospital to deal more effectively with this development.

Concurrently, Maj. (later Lt. Col.) James A. Halsted, MC, Chief, Gastrointestinal Section, 6th General Hospital, back in Rome, was becoming interested in what might be done about psychogenic gastrointestinal disorders. Of his cases at the 6th General Hospital (most of which had come from the Fifth U.S. Army), 85.4 percent showed no organic disease, and 67.0 percent had a "definite" psychoneurosis. Less than 50 percent of the psychoneurotic group could be returned to full duty by the time they had been evacuated through medical channels as far back as Rome. Yet at the farther forward 3d Convalescent Hospital in the Fifth U.S. Army area, of 81 cases with predominantly psychogenic factors, 84.0 percent could be returned to full duty.[47]

For these reasons, on 23 October 1944, the 1st Platoon, 601st Clearing Company, was organized as a center for gastrointestinal diseases, in the Fifth U.S. Army, with five medical officers under the supervision of Major Halsted. This installation was across the road from the "601st" (the 2d Platoon of the 601st Clearing Company), so that the psychiatrists from there were able to participate in the study. Adequate laboratory facilities were provided, and gastrointestinal fluoroscopy was available at the nearby 56th Evacuation Hospital.

In the period between 23 October 1944 and 15 January 1945, 492 cases were studied. (In line with theater policy, 540 cases of hepatitis with jaundice were evacuated promptly to the base section.) Of the 492 cases studied, 400 were returned to full duty and 35 to limited duty, so that only 57 (12.0 percent) had to be evacuated out of the Fifth Army area. This salvage of 88.0 percent of the patients for duty in the army area was accomplished with a hospital stay which averaged only 11.2 days.[48] (In the base section, hospitalization for similar cases previously evacuated there had averaged 21 days with a salvage rate of only about 50.0 percent.)[49]

[47] History, Fifth Army Medical Service, 1944, pp. 59–60.
[48] History, Fifth Army Medical Service, 1945, p. 119.
[49] History, Fifth Army Medical Service, 1944, p. 63.

On 15 January 1945, the duties of the gastrointestinal center were transferred to the 15th Field Hospital. Here, 241 cases were studied between 15 January and 1 April 1945, with 174 cases returned to duty and 22 classified for limited service (a total of 196, or 81.0 percent of the 241 cases studied). Average hospitalization in this group was only 9.9 days.[50] Unfortunately, it was necessary for the 15th Field Hospital to resume its surgical duties when the final offensive action began in April 1945, and there was no opportunity to determine the value of specialized care in the army area for psychogenic disorders of the gastrointestinal system during a period of heavy combat.

WINTER STALEMATE (NOVEMBER 1944–APRIL 1945)

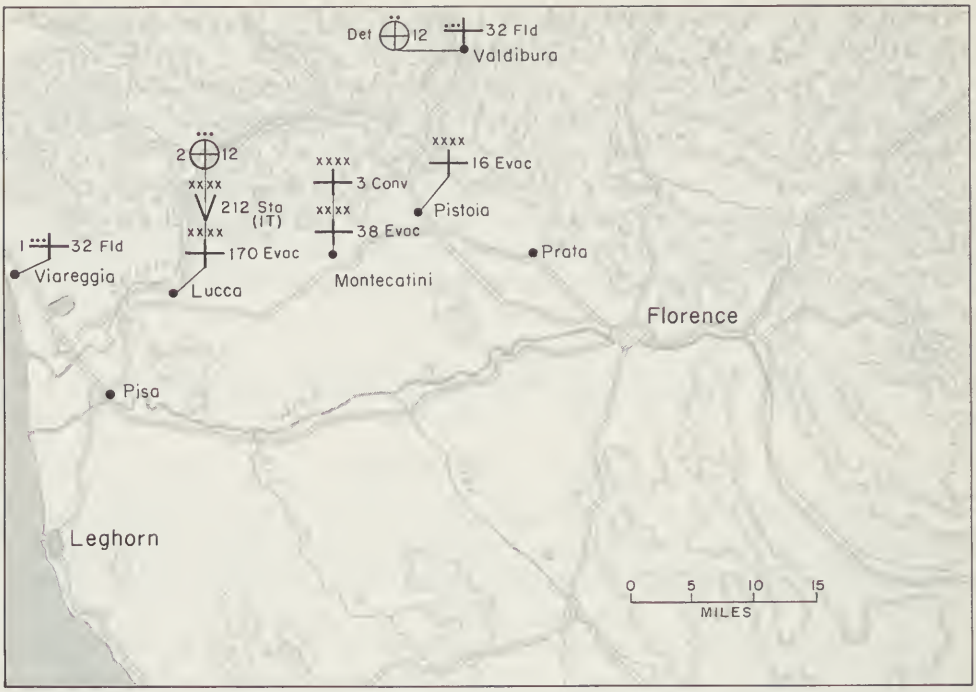
Tactical Considerations

After stabilization of the battlelines in late October, combat in all sectors was limited mainly to patrolling and reconnaissance. Several local and indecisive actions occurred, but, for the most part, the forward lines were held by reduced forces while units were rotated for rest periods, usually to the prewar resort town of Montecatini. Reinforcements for the Fifth U.S. Army began arriving in November, comprising the 92d Infantry Division and attached units, the Brazilian Expeditionary Force (division size), and 5,000 individual replacements. The 92d Infantry Division took over the extreme western sector of the front and made minor gains in the coastal area north of Viareggio.

In January 1945, the 10th Mountain Division, composed of highly trained and carefully selected mountain troops, arrived fresh from the United States and reached the combat zone. February 1945 saw a return to the Fifth U.S. Army of the Japanese-American 442d Regimental Combat Team, which had distinguished itself during the fighting in southern France.

With snow now blanketing the peaks and filling the mountain passes and roads, little action of any kind seemed possible (map 11). But vigorous patrolling continued, and with frequent, harassing artillery fire, there was a small but persistent incidence of battle casualties. Training was continuous and supplies were built up as preparations were made for the forthcoming spring offensive. In this connection, from 18 February to 9 March, the 10th Mountain Division, assisted by the 1st Brazilian Division, launched a limited but intensive offensive, which was brilliantly executed and retook long disputed Monte Belevedere and a dozen peaks beyond it, secured 10 miles of Highway No. 64, and gave the Fifth U.S. Army good positions for the later spring drive to the Po Valley.[51]

[50] History, Fifth Army Medical Service, 1945, p. 119.
[51] Wiltse, *op. cit.*, pp. 423–425.



MAP 11.—Fifth U.S. Army hospitals, winter stalemate, 15 January 1945.

Division Psychiatry in Static Warfare

During the static warfare period of small battle losses and thus relatively few psychiatric casualties, division psychiatry, particularly in the veteran divisions of the Fifth U.S. Army, was occupied mainly in improving treatment facilities for the next offensive, in psychiatric orientation of line medical officers, and in medicolegal evaluation of disciplinary offenders awaiting general court-martial. On 9 November, the 91st Infantry Division finally established a training and rehabilitation center, which became operational as a separate unit.[52] The training and rehabilitation center of the 85th Infantry Division was also given sufficient personnel, messing facilities, and transportation to permit function as a separate unit in the event of need.[53]

All division psychiatrists agreed on the necessity for division psychiatric units (training and rehabilitation centers) to have the operational capability to function autonomously; that is, to move and locate as required by the psychiatric mission. Also, in the 85th Infantry Division, the success of the 337th Infantry Regiment exhaustion unit led to the adoption of

[52] See footnote 24, p. 63.
[53] See footnote 12, p. 54.

similar programs by the other two regiments. Because of the low incidence of psychiatric casualties, these regimental facilities were chiefly utilized in the treatment of minor illnesses and injuries, particularly mild trenchfoot. This procedure sharply reduced the loss of manpower days from disease and prevented the "gain in illness" which would have resulted if such cases were hospitalized.

The 34th Infantry Division psychiatrist conducted a series of lectures for line officers on the problems of adjustment in combat. He also endeavored to establish a program for the screening of replacement officers after a short trial of combat in an effort to eliminate poor leaders before they could "damage" their units, but this well-conceived attempt at preventive psychiatry was denied.[54]

Several division psychiatrists were requested to screen enlisted personnel recommended for officer candidate schools or battlefield commissions. However, these men had proved themselves by superior combat records and, in effect, were self-screened. In this connection, the 85th Infantry Division psychiatrist had the amusing experience of evaluating several men with outstanding combat records, but who had been treated several months previously for "exhaustion" at the training and rehabilitation center. When confronted with the record of their psychiatric evacuation and treatment, not only did each subject fail to recognize the division psychiatrist, but all denied prior "nervous" symptoms and insisted that they had only been relieved for a "rest" at some vague rear division area. Of course, the division psychiatrist was delighted with such excellent results of treatment and interposed no objection to the proposed battlefield promotion.

"AWOL from battle."—Perhaps the major daily preoccupation of the "veteran" division psychiatrists during this time (November 1944–April 1945) was the examination before court-martial of disciplinary offenders who had been charged with desertion, misbehavior before the enemy, or similar military offenses generally subsumed under the informal category of "AWOL from battle." These offenses had occurred in previous months of active fighting, but were being processed at this time when the divisions less involved in combat could accomplish the necessary legal procedures.

During this inactive period, each division psychiatrist saw literally hundreds of such offenders, few of whom displayed evidence of serious mental disease; an exhaustive analysis of these cases was made for the division commander and interested Fifth U.S. Army staff officers. A survey of disciplinary offenders from the 85th Infantry Division is presented, which is believed to be typical for Fifth U.S. Army combat units at this time. It was limited to offenses committed during the previous combat period of 13 September to 22 November and restricted to 200 individuals

[54] Psychiatric History, 34th Infantry Division, pp. 13–14.

who, by words (refusal to obey orders) or acts, demonstrated their intent to avoid combat duty. The survey indicated the following: [55]

1. The AWOL from combat rate increases with the duration of the offensive action. It appears to be a gradual and cumulative result of combat rather than a resultant of the intensity of battle. In contrast, the psychiatric rate follows the battle casualty rate—rising and falling with the intensity of combat.

2. The majority of the offenders came from the "old" men of the division, who had experienced combat before the Gothic campaign and not from new replacements. In fact, only 17 of the offenders were in their first combat period. This finding reinforced the impression that AWOL is a result of cumulative battle experience and is again in contrast with common observations that a majority of psychiatric casualties arise from "new" men or the replacement group.

3. In two-thirds of the cases, the offense was initiated at a safe rear area—as when returning from hospitalization, or during a rear detail, or when the unit was preparing to move forward into combat. Thus, in most instances, acute battle anxiety was not present at the time of the offense. It should be recognized that rear areas are an opportune place to go AWOL, for military control is less strict and no personal danger is involved, as might be the case in active combat. This finding is similar to that observed with self-inflicted wounds, which also occur mainly in safe rear areas.

4. Age and intelligence seemed to play no significant role in AWOL.

5. Three out of four subjects frankly stated that fear of combat was the cause of their AWOL. Another 15 percent gave somatic symptoms as the cause, but readily admitted that fear of combat was the major factor. In only 10 percent could the AWOL be ascribed to boredom, searching for pleasure, alcoholic excess at the time, or other reasons.

6. Only one of four offenders sought medical or psychiatric aid immediately before AWOL, and was refused evacuation. Of this group, it was judged in retrospect that only 25 percent should have been admitted and treated as psychiatric casualties. It was clear that the majority of offenders did not believe that they were ill and thus AWOL was the only method of avoiding hazardous duty.

7. No clear correlation could be found between psychiatric rates and AWOL rates. Regiments with the lowest and highest psychiatric rates had similar AWOL rates. However, the battalion with the largest number of AWOL's also had a high psychiatric rate and contained three of the five officer offenders in the series. Thus, it can be suspected that the presence of officer offenders may well influence similar behavior in the men.

8. Approximately one-third of the offenders had been recently hospitalized before AWOL, many for wounds. It is evident that sojourn in a comfortable rear hospital adversely influences any positive attitude toward

[55] See footnote 9, p. 52.

return to hazardous combat duty. However, only three of the group had previously received any psychiatric treatment.

9. One may conclude from the above findings that, while both the psychiatric casualty and AWOL from combat have a common basic etiology, that is, the dangers of battle, quite different mechanisms are operative. The AWOL soldier consciously elects to avoid combat as a result of chronic anticipatory anxiety deriving from accumulated battle experiences. The AWOL is performed usually when away from the supportive or sustaining influence of the combat group or when such support is no longer operative. Conversely, the neuropsychiatric casualty arises during the intensity of battle and occurs when the individual is bereft of his own individual sustaining powers or group support by the traumatic and disruptive forces of combat.

The salvage of some AWOL soldiers from combat was considered feasible. In cooperation with the Judge Advocate General of the 85th Infantry Division, recommendations were made relative to whether the offender was considered reclaimable or not reclaimable for combat duty. Only individuals who were found not to have a chronic anxiety state and who presented a favorable attitude toward return to combat duty were recommended as reclaimable. Such individuals were held in the division and released to their unit after several months of good conduct and work in the division stockade. Their effectiveness upon return to duty was never determined, as a later prolonged offensive combat period did not occur for the 85th Infantry Division.

"Old psychiatrist syndrome."—During this long and seemingly interminable period of winter warfare, there developed among the "old" division psychiatrists varying degrees of tension, jumpiness, irritability, and weariness which was humorously labeled by them as the "old psychiatrist syndrome." This emotional state was not particularly the result of exposure to danger, as division psychiatrists generally were only inadvertently and for brief periods subjected to actual hazard. Necessary visits to the various divisional elements were made on roads more dangerous because of slippery and deep ruts than occasional enemy fire. The basic cause of this irritable weariness lay in the professional work of the division psychiatrist. Daily, he saw and endeavored to evaluate and treat many dispirited, unhappy, depressed, and anxious men who sought relief mainly from combat. This constant demand upon the emotional resources of the psychiatrist, with its problems of empathy and identification, made difficult the maintenance of objectivity necessary in making vital decisions for each psychiatric casualty, AWOL offender, or other referred problem.

The best treatment for the "old psychiatrist syndrome" was a 1- or 2-day visit to the 601st. There, the veterans of the 601st, Capt. (later Maj.) Edwin A. Weinstein, MC, Capt. Martin Stein, MC, and others, intuitively grasped the problem and provided the respite needed by the division psy-

chiatrist. Always available were a hot shower, food, and "drink" to relieve physical discomfort. More important to the professionally lonely division psychiatrist was the opportunity to talk shop with interested, knowledgeable combat psychiatrists, to compare rates and experiences with other division psychiatrists, to obtain news of pertinent events, and to relax in the social warmth of one's own group. The authors are happy to report on the basis of extensive followup observations that the "old psychiatrist syndrome" produced no important residual ill effects.

Newly Arrived Divisions

As previously stated, three units of divisional strength reinforced the Fifth U.S. Army during the November 1944–April 1945 period—the 92d Infantry Division, the Brazilian Expeditionary Force, and the 10th Mountain Division.

92d Infantry Division

The history of psychiatry in the 92d Infantry Division provides a valuable lesson in the age-old military problem of morale. This unit, activated in October 1942, was ostensibly an all-Negro infantry division. However, undoubtedly because of the scarcity of career and trained Negro officers, senior commanders and many of the junior officers were Caucasian.

As reported by Capt. (later Maj.) Laynard L. Holloman, MC, division psychiatrist, who joined the division in May 1944, in the first 18 months of its training, 2,631 men were discharged for disability or transferred to limited service.[56] Also, because of a persistently large number of stragglers, it was necessary to establish a rehabilitation center within the division for men who, although repeatedly found fit for duty, either could not or would not keep pace with their units. In July–August 1944, there were 1,250 men in the rehabilitation center, most of them "mild psychosomatics who were useless to the Army, not because of their mild organic pathology, but because of a disabling overlay of neurotic manifestations." Captain Holloman instituted a vigorous psychiatric program which included—

1. Evaluation of all psychiatric referrals with regular visits to discuss the problems of these soldiers with company commanders.
2. Establishment of an adviser system, composed of a noncommissioned officer, the company commander, the battalion surgeon, and the psychiatrist, to aid the soldier with problems.
3. Lectures to officers and men on leadership and adjustment.
4. Discussions with all medical officers on the recognition and treatment of less severe emotional problems and psychiatric casualties at the aid station level.

[56] History of Division Psychiatry, 92d Infantry Division. [Official record.]

On 8 November 1944, the 92d Infantry Division and attached units were committed to combat in the relatively quiet western sector of the Apennines front. The division psychiatric unit (training and rehabilitation center) was attached to the clearing station. Combat activity was mild. During November, approximately 250 battle casualties were incurred with 90 psychiatric casualties,[57] of which over 70 percent were returned to duty by the usual psychiatric treatment procedures that included 2 days of rest and 2 days of training.

In late December, a tactical event occurred which had a profoundly adverse effect upon the morale of the 92d Division. A counterattack by the Germans down the Serchio Valley in the 92d Infantry Division sector was believed to have gained considerable ground. Rumors were widespread relative to the wholesale withdrawal of the 92d Infantry Division, the poor fighting ability of Negro troops, and their headlong flight from the Germans. Several divisions, including the 8th Indian, 85th Infantry, and others, were rushed to the presumably threatened area. This prompt action of high command was apparently quite justified. The large depots at Leghorn, the major port supplying the Fifth U.S. Army, would have been endangered by a large-scale German offensive in this sector. Also fresh in the minds of everyone at this time was the unexpected and almost successful breakthrough of the Germans in the Ardennes region of the European theater (Battle of the Bulge), with its implications for a similar offensive threat in Italy.

When the 85th Infantry Division reached the 92d Infantry Division sector, this author (A. J. G.) went forward to find Captain Holloman and to offer any assistance that might be needed. At the time, all seemed calm in the Serchio Valley. Indian troops had already arrived and were moving up to retake the lost ground. Captain Holloman was contacted at the clearing station. He reported no unusual or excessive psychiatric casualties and obviously required no help. In discussions with Captain Holloman and other Negro officers of the clearing station, it was apparent that they had been deeply offended by the rumors of a wholesale withdrawal of the 92d Infantry Division. They pointed out that only one regiment was involved, which made an orderly withdrawal from what was considered to be a superior force. Regardless of what the facts were in this episode, these officers had come to believe that the 92d Infantry Division and Negro troops had been unjustly maligned, but it was admitted that there were morale problems in the 92d Infantry Division. In this connection, again whether true or not, the Negro officers believed it was the policy of the 92d Infantry Division to have no Negro officer superior to a white officer.[58]

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[57] See footnote 23, p. 62.

[58] The existence of such a policy could not be confirmed. This impression, however, could have readily been created because of the relative scarcity of senior Negro officers. In retrospect, it is apparent that a basic error was made by the creation of segregated Negro combat or other type U.S. military units. Segregation of Negro troops in separate units was a clear communication that they must be considered as inferior beings for separation could have no other purpose. Any formal policy of equal rights and equal sacrifice is

Brazilian Expeditionary Force

In July 1944, elements of the Brazilian Expeditionary Force began to arrive in Italy.[59] Initially, Capt. Mirandolino Caldas, psychiatrist of the Brazilian Expeditionary Force, with a group of Brazilian medical officers, worked at the 38th Evacuation Hospital. In early September, at a conference that included Col. Marques Porto, Surgeon, Brazilian Expeditionary Force, Major Drayer, Consultant in Neuropsychiatry, Fifth U.S. Army, and Captain Caldas, it was decided to institute promptly a program of forward treatment for psychiatric casualties of the Brazilian Expeditionary Force, as such cases could not be readily treated in U.S. facilities because of the language barrier.

On 7 September, Captain Caldas joined the Treatment Post of the Brazilian Medical Battalion and established a combat psychiatric service. Initially, Captain Caldas experienced the same vicissitudes as had American division psychiatrists, having "neither material, nor personnel, nor understanding."

On 15 September, the 6th Regimental Combat Team of the 1st Brazilian Division moved into the battleline in the western sector of the Apennines front as part of the IV Corps. For the next 2 months, combat activity was slight and few psychiatric casualties occurred.

On 2 November, Captain Caldas obtained enlisted assistants, tentage, and other equipment and established the Advanced Post of Neuropsychiatry, separate from the medical battalion except for messing facilities. During November, the 1st and 11th Regimental Combat Teams of the 1st Brazilian Division entered combat, and the division, now operating as an entity, was shifted eastward and committed to action in the Monte Castello region. In the ensuing months, the 1st Brazilian Division engaged in offensive and defensive combat of mild to severe intensity in mountainous terrain, which included the assault and capture of Monte Castello and other peaks in conjunction with the 10th Mountain Division offensive (19 February–9 March), and the final breakthrough into the Po Valley. During its entire combat participation, the division sustained more than 1,500 battle casualties exclusive of killed and missing, and incurred 384 psychiatric casualties (including 34 readmissions).

Clinical picture.—The clinical picture of the psychiatric casualties observed at the Advanced Post of Neuropsychiatry was graphically described by Captain Caldas as follows: "Some ate well and others didn't want to eat.

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negated by actions which demonstrate inequality. Once this primary mistake was made, morale difficulties were certain to arise, even with men of tolerance and good faith. Blame of persons or a group was not the issue, for a chain of events had been set in motion. For example, it was impossible to staff adequately an all-Negro division with senior Negro officers. Thus, the 92d Infantry Division was destined from the beginning to have basic problems in morale. The same lesson was relearned during the Korean War with the all-Negro 24th Regiment of the 25th Infantry Division. After one year of repeated morale difficulties, this unit was finally disbanded in 1951 with the abolition of segregation in the U.S. Armed Forces.—A. J. G.

[59] Unless otherwise noted, this section on the Brazilian Expeditionary Force is from: Caldas, M.: The Neuropsychiatric History of the Brazilian Expeditionary Force, 1950.

Some presented a grave anxiety state; others delirium, delusions, and agitation; others mutism, or negativism; others grimaced and cried, as beasts; others crept and gesticulated as in attacks upon the enemy; others were thoughtful and quiet."

Although types of the florid symptomatology just described were commonly noted in psychiatric casualties from U.S. troops new to serve in combat, cultural characteristics of Brazilian troops may have been a contributory factor. Evidence to support such a possibility was the finding by Captain Caldas of a high incidence of major hysteria. Of 350 psychiatric casualties, Caldas listed 47 as hysteria, 38 of whom were termed "hysteric seizure." This proportion of 13 percent hysteria for psychiatric casualties was considerably higher than that found in U.S. troops, which usually did not exceed 5 percent. Of course, lack of uniformity in diagnostic terminology may well explain part of this difference. However, if one adds the 20 cases listed by Caldas as "epileptic seizure-simulated," it would appear that dramatic seizure-type manifestations were quite common in psychiatric casualties from Brazilian troops.

Captain Caldas also listed five cases of "psychosis-simulated," one of "amnesia-simulated," and one of "insomnia-simulated." It would appear either that simulation was more frequent in Brazilian troops or that Captain Caldas diagnosed simulation more readily than his U.S. colleagues, assuming that the term "simulation" is equated with malingering. U.S. military psychiatrists almost uniformly insisted that "true" malingering was rare, although exaggeration of symptoms by U.S. soldiers was not unusual.[60]

Treatment.—The treatment of combat psychiatric casualties, as reported by Captain Caldas, was unique: On admission, patients were briefly interviewed relative to symptoms and complaints. Then, after a hot bath, when possible, clothing change, and substantial hot food, deep sleep was induced by intravenous barbiturates given every 4 to 6 hours for 1, 2, or 3 days, as indicated by the needs of the patient. In patients resistant to sleep, morphine and scopolamine were used to supplement the barbiturates.

Upon awakening, patients were recovered from exhaustion, usually had forgotten the awful scenes of battle, and were ready for "recuperative" interviews, which were conducted in Captain Caldas' office. First, the patient was given an explanation of his psychiatric breakdown and symptoms in which Captain Caldas employed his own theory of behavior under stress. Then followed an inspirational exhortation with strong suggestions, directing the patient to alter previous attitudes, suppress undesirable thoughts and fears, and forget the past traumatic events of battle. Appeals for loyalty to comrades, officers, his unit, the ideals for which his country was fighting, and the honor of the Brazilian Army were also stressed.

[60] Perhaps we are again only dealing with a difference of degree, or viewpoint, or terminology, rather than one of culture or values.—A. J. G.

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Alternatives to improvement and return to duty were pictured in most pessimistic terms—isolation from others, the hell of mental torture, and inevitably another breakdown which would spoil his life and that of his family. The patient was then assured that such a catastrophe need never take place, and that he could and would change and recover by following the instructions that were given. The interview was ended with such phrases as: "Go ahead, my comrade, go ahead and good luck!"

Captain Caldas reported that some patients willingly received these suggestions; within the next day or two, of their own accord, they returned to him, thanked him, said they were much better, and asked to be returned to their unit. Others came and expressed doubt and were given more psychotherapy. Some did not seek him out and were called for new interviews.

This type of inspirational and directive psychotherapy is reminiscent of the treatment given psychiatric casualties in World War I by Allied psychiatrists. It is highly probable that such techniques would have been considered inappropriate by Fifth U.S. Army psychiatrists, as the "sophisticated" U.S. soldiers of World War II would have resented such dramatic appeals to honor and ideals as an accusation of weakness or cowardice. However, Captain Caldas apparently knew his people well for he reported superior results of treatment. Of 384 admissions, 302, or 79 percent, were returned to duty. However, no followup studies were reported and general experience suggests that actual readmissions (34 in this series) represented only a fraction of treatment failures.[61]

10th Mountain Division

Psychiatry in the 10th Mountain Division began in late 1943 or early in 1944 with the assignment of Maj. Lewis Thorne, MC, as division psychiatrist. During 1944, before leaving the United States, Major Thorne had the opportunity to become thoroughly acquainted with the division and familiar with its personnel problems. He saw all psychiatric referrals, trained 10 enlisted assistants, participated in the identification and elimination of unfit personnel, and oriented all Medical Department officers in the essentials of psychiatry with a view toward the prevention and treatment of combat psychiatric casualties. He maintained close contact with the chaplains, the Special Service officer, the Information and Education officer, the Inspector General, and the Judge Advocate General relative to the problems of individuals. He gave personal adjustment lectures, as pre-

[61] Veteran division psychiatrists became cautious in returning patients to duty, particularly those individuals who had never performed well or who had chronic anxiety states. Followup studies in the field served as the cold water of reality in making the psychiatrist aware that commanders had other means of removing or of not utilizing the noneffective returnee to combat (transfer, rear details, et cetera) other than sending him back to the psychiatrist who did not seem to understand that the individual was of no value to the unit.—A. J. G.

scribed by WD (War Department) Circular No. 48, 1944, to all units of the division.

In addition, Major Thorne compiled statistical data for each company size unit on the incidence of absence without leave, arrest, court-martial, venereal disease, psychiatric cases, and sick call rates to identify morale problem areas in the division.[62] Reports on morale were regularly furnished to the division commander. Thus, of all the divisions in Italy, the 10th Mountain had the longest period of division psychiatric services before combat, and therefore had the best opportunity to demonstrate the value of such preventive measures as screening, orientation on personal adjustment, and awareness of the psychologic aspects of morale problems. This preventive program may have played a significant role in the later combat effectiveness of the division and its low incidence of psychiatric casualties.

"Fitness Center."—After arriving in Italy in mid-January 1945, Major Thorne spent some time observing the psychiatric programs of the 34th and 85th Infantry Divisions. Then he established the 10th Mountain Division psychiatric unit which he termed the "Fitness Center," [63] which was located near the 1st Platoon, one of three platoons of the division clearing company (other divisions had only two platoons in the clearing company). The 1st Platoon continued to act as a clearing station when needed, but its major mission was to hold and treat mild chronic cases, both medical and surgical. Separate but closely allied was the Fitness Center for the care of emotional disorders and the retraining, when necessary, of all types of patients.

The Fitness Center had its own messing facilities and personnel. Additional personnel were drawn from patients unfit for combat duty, as was done in other division training and rehabilitation centers. An infantry officer was supplied on detached service from one of the regiments and rotated every 2 weeks. Regimental fitness centers were also established.

By experience, Major Thorne found that the treatment of psychiatric casualties was much less effective if these men were exposed to realistic danger.

Offensive action.—From 18 February to 9 March, the 10th Mountain Division successfully engaged in its first severe offensive action, sustaining 1,422 battle casualties and 153 psychiatric cases.[64] This ratio of 1 psychiatric casualty to 9 battle casualties probably represented a new low incidence of combat psychiatric casualties from division-size units in the

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[62] Annual Report, 10th Mountain Division, 1944, pp. 5–6.

[63] Many division psychiatrists were unhappy with the unwieldy and nonpsychiatric term "Training and Rehabilitation Center," which was adopted to avoid using the word "psychiatric" and its presumed implication of "psycho" or insanity. Major Thorne seemed to have hit upon a more pleasing semantic term which accomplished the same purpose of not using "psychiatric." The "old division psychiatrist," however, did not change—somehow being accustomed to the abbreviation "T&R Center."—A. J. G.

[64] History of 10th Mountain Division From the Psychiatrist's Viewpoint, 5 June 1945, p. 8. [Official record.]

Mediterranean theater. However, casualties treated and returned to duty by regimental fitness centers were not reported.

Major Thorne found the majority of cases had varying degrees of anxiety intermixed with physical fatigue. The incidence of psychiatric casualties was three times greater from recent replacements than from "old" men of the division, although all were new to combat. Major hysteria was noted in only 2.0 percent of the cases. Treatment was much like that described in other divisions, with emphasis on the "here and now" and avoidance of psychiatric probing of the past. Of 153 cases, approximately 80.0 percent were returned to duty [65]—a superior performance. However, no followup studies were reported.

Developments at Army Level

A number of psychiatric developments at the Army level, concurrent with the events discussed thus far, should be mentioned.

1. *Professional integration:*

A growing sense of group identification among all psychiatrists in the Fifth U.S. Army resulted in monthly meetings of the group, initiated at the 601st by Captain Weinstein in February 1945. These meetings were also attended by psychiatrists from the base section and from the British Eighth Army.

At these monthly meetings, papers were presented and discussed freely with the result that concepts of psychiatric experience in the Fifth U.S. Army were brought into clearer focus. The improved recognition of the psychiatric services was dramatized when Lt. Gen. Lucian K. Truscott, Jr., who had succeeded Lt. Gen. (later Gen.) Mark W. Clark (fig. 9) as Commanding General, Fifth U.S. Army, attended the meeting on 15 March 1945 and joined actively in the discussion.[66]

2. *Coordination with command:*

Throughout history, great armies have reflected to a large degree the quality of their leadership. It is almost axiomatic that morale and resistance to the stress of combat are directly proportional to the adequacy of those in command. It was, therefore, only natural, as psychiatric services became

[65] Statistical Data, Fifth U.S. Army Psychiatric Consultant.

[66] As recorded in the minutes of the meeting of the Fifth U.S. Army psychiatrists, in March 1945, General Truscott was greatly impressed with the value to morale of personal leadership at all levels of command. In a personal conversation with one of the authors (C. S. D.) some years after the end of World War II. General Truscott told of becoming much less concerned lest malingerers, trying to evade combat duty maliciously, might be mistaken for neuropsychiatric casualties by the time his VI Corps (3d, 36th, and 46th Infantry Divisions) invaded southern France. Hence, he no longer required all neuropsychiatric casualties to be seen by the division judge advocates. He continued to believe, however, that such casualties should be seen by the regimental commander before evacuation from the regimental area. In a letter of 25 February 1945, to all commanding generals, all corps and divisions, Fifth Army, subject: "Psychoneurosis Among Officers," General Truscott had stated: "I do not believe that any officer or enlisted man should ever be evacuated from a regimental area as a psychoneurotic until he has been seen by his regimental commander. This personal interest by regimental commanders will often steel the pride and steady the nerve of an individual who might otherwise become a medical case."

FIGURE 9.—Lt. Gen. Mark W. Clark (left) and Lt. Gen. Lucian K. Truscott, Jr. (right), at the time General Truscott took over the command of Fifth U.S. Army.

better accepted, that they should become somewhat involved in matters pertaining to leadership, officer selection, and discipline. There was mutual advantage when a division psychiatrist and a division judge advocate coordinated their efforts to understand and modify socially undesirable behavior within a division. All army psychiatrists also cooperated with research on attitudes and morale which was conducted by the Research Branch, Information and Education Section, Headquarters, MTOUSA (Mediterranean Theater of Operations, U.S. Army). Analyses of this research were published by the Mediterranean theater during the summer of 1945 in a series of reports designated by the code number 114–M.

Particularly relevant to Fifth U.S. Army psychiatry was Report No. 114–M–9, "The Prediction of Neuropsychiatric Breakdown in Combat," issued on 27 August 1945. This report recognized that "the gradually wearing down effects of combat and of life at the front" may be "the major

cause of combat psychoneurosis. Since all persons are subject to this, a screening device is of no use in predicting breakdown from such a cause." Fifth U.S. Army psychiatrists, from many clinical experiences, generally agreed that accurate prediction of disabling emotional disturbance in combat could hardly be expected from any means yet available.

The progress made in coordination between psychiatric services and command is illustrated by an incident which occurred at the meeting of neuropsychiatrists, at the 601st, held on 15 March 1945. At one point, Major Zigarelli, division psychiatrist of the 1st Armored Division, was reviewing the role of company commanders in the prevention of psychiatric casualties. General Truscott (who, as already noted, attended this meeting) stood up and, after apologizing for interrupting, said that while he agreed with the major he felt strongly that these responsibilities began with himself as commanding general and extended down the chain of command into all parts of the Fifth U.S. Army. As General Truscott put it: "The whole business of psychoneurosis is a command responsibility and extends to all echelons of command."

3. *Investigation of special problems:*

A combat area is not an ideal laboratory in which to undertake impeccable research successfully. Nevertheless, Fifth U.S. Army psychiatrists realized the dangers of relying wholly on individual, subjective impressions of what should be done and the results subsequently obtained. Consequently, some studies were made, independently or jointly with other interested groups and individuals.

The investigation of patients with gastrointestinal complaints, carried out with Major Halsted, has already been summarized. Also mentioned was the support given the Research Branch of the Information and Education Section, MTOUSA.

Further, at the suggestion of Colonel Hanson, a study of cerebral concussion relative to blast injury from artillery fire was undertaken in forward areas of the Fifth U.S. Army front from March 1945 until the conclusion of the Italian campaign. The major instrument used was a mobile electroencephalographic apparatus (fig. 10). Few blast injuries occurred in the type of mountain warfare of this period, and when the final Po Valley push occurred in April 1945, the advances were so rapid that it became impossible to evacuate small groups of select cases to a predetermined destination in the rear. Accordingly, the investigation was inconclusive but gathered sufficient information to warrant further studies.[67]

4. *"Manual of Military Psychiatry":*

Under the leadership of Colonel Hanson, several division and other psychiatrists in the Fifth U.S. Army (also in the Seventh U.S. Army) wrote

[67] A more detailed account of this study is contained *in* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1967, pp. 542–544.

FIGURE 10.—Mobile electroencephalograph stationed at 8th Evacuation Hospital, Highway No. 65, Pietramala, March 1945.

articles during the winter of 1944–45, on various phases of combat psychiatry as it had developed in the Mediterranean theater. These manuscripts were edited the following summer by Colonel Hanson and Major Drayer and were later published in full in a supplemental issue to the November 1949 issue of the *Bulletin of the U.S. Army Medical Department*.[68] In this publication will be found much of the clinical detail and theory which have not been included in this account of psychiatry in the Mediterranean theater.

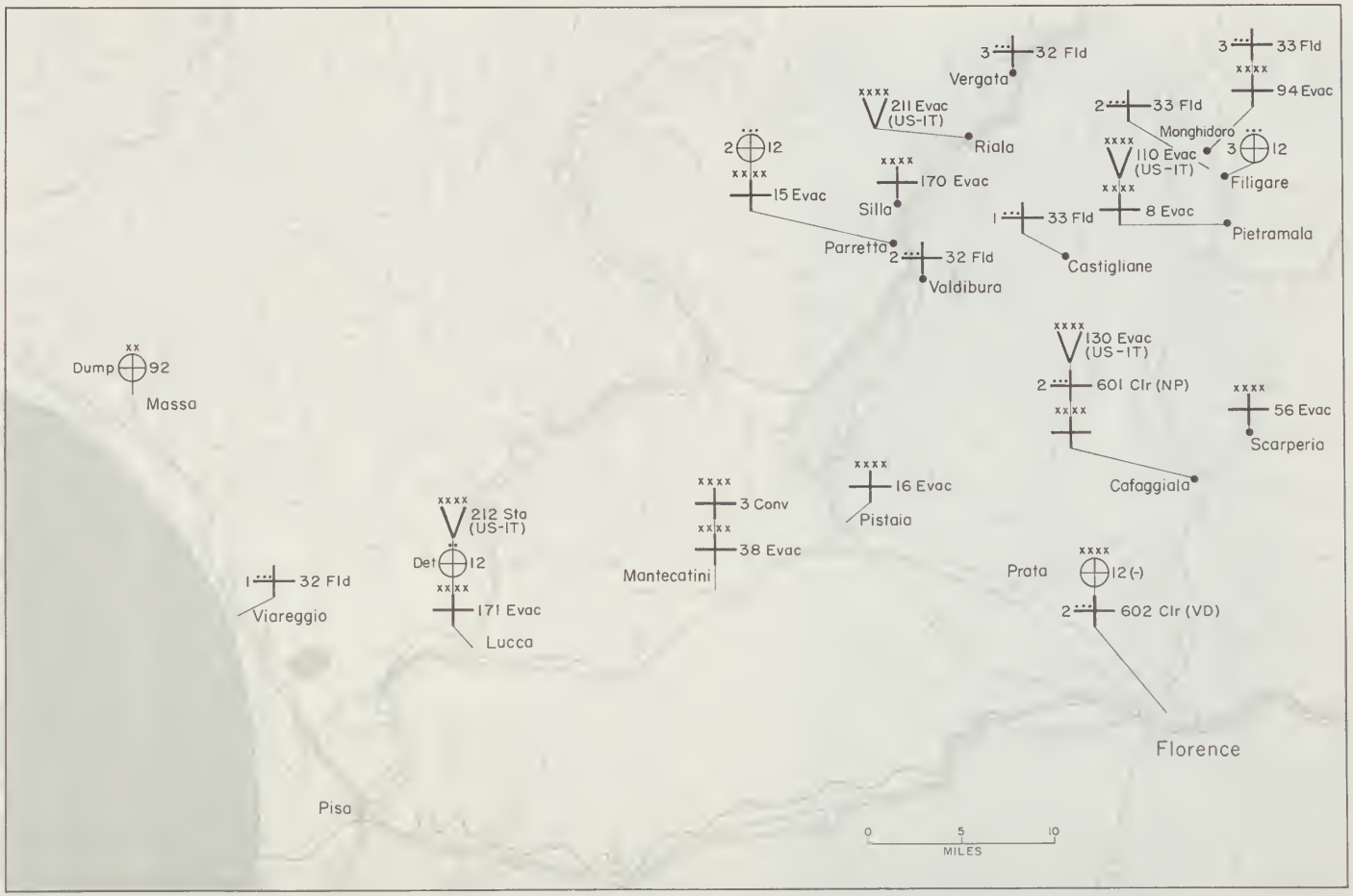
PO VALLEY CAMPAIGN (5 APRIL–2 MAY 1945)

Tactical Considerations [69]

With the coming of spring in 1945, the Allied armies had completed plans and preparations for the final offensive into the Po Valley and for the liquidation of German forces in Italy (map 12). The 92d Infantry Division was to lead off with an advance up the Ligurian Coast toward

[68] In 1949, it fell to the lot of Lt. Col. Stephen W. Ranson, MC, then assigned to the Neuropsychiatry Consultants Division, Office of The Surgeon General, to resurrect, edit, and implement publication of these papers which, as has just been stated, then appeared as a supplemental issue of the November 1949 *Bulletin*. The timing was fortunate for, with the outbreak of the Korean War (June 1950), this issue became the "Manual of Military Psychiatry" during that conflict. Thus, while the writings were not utilized in World War II, they fulfilled a major need only 5 years later.—A. J. G.

[69] Wiltse, *op. cit.*, pp. 457–467.



MAP 12.—Hospitals supporting Fifth U.S. Army offensive to Po Valley, 18 April 1945.

Massa and La Spezia. Attached to the 92d Infantry Division, in addition to its own three Negro regiments, were the 442d RCT (composed of Japanese-Americans) and the nonsegregated 473d RCT (composed of former antiaircraft artillery troops who had been fighting in infantry since August 1944). Several days later, the British Eighth Army was to attack in the eastern sector. When these diversionary attacks had engaged as many troops as possible, the IV and II Corps of the Fifth U.S. Army, at full strength, were to make the main effort by assaulting the central sector.

On 5 April, the 92d Infantry Division opened the attack with its own 370th RCT on the coastal plain and the attached 442d RCT pushing through the mountains to the east. The advance was most difficult. The mountains were sheer rock cliffs and deep gorges. The narrow coastal plain was mined and traversed by many streams and canals. By the end of the first day, the 442d RCT was approaching the high ground overlooking Massa, but the 370th RCT had encountered intense enemy fire and withdrew in the face of strong counterattacks. When the 370th RCT was unable to regroup the next day owing to excessive losses in stragglers, it was relieved by the attached nonsegregated 473d RCT which took Massa on 9 April and Carrara on 11 April; the 442d RCT outflanked both towns in bitter mountain fighting. The British Eighth Army attacked on 9 April, was across the Santerno River on 11 April, and by 13 April was beyond the Sillaro River in the low ground on the road to Bologna.

On 14 April, the IV Corps launched the main drive, spearheaded by the 10th Mountain Division, which in the first day seized and held a series of peaks west of Highway No. 64, while on their left, the Brazilians took Montese, and on the right, the 1st Armored Division advanced along Highway No. 64 and entered Vergato. All IV Corps units continued to advance on 15 April. Just before midnight, the II Corps joined the offensive with the 88th Infantry and the 6th South African Armored Divisions attacking in the area between Highways Nos. 64 and 65, followed at 0300 hours on 16 April by the 91st Infantry Division astride Highway No. 65 and the 34th Infantry Division to the right, both divisions striking at Bologna.

On 17 and 18 April, the 85th Infantry Division relieved the 1st Armored Division north of Vergato, the latter moving to the left of the 10th Mountain Division. On 19 April, enemy resistance began to crumble. The 85th Infantry Division took Casalecchio in the low ground on 20 April, while the 10th Mountain Division moved into the Po Valley, cutting the major lateral road west of Bologna (Highway No. 9), and the II Corps broke through the last of the high ground in its path. Bologna fell on 21 April to the 34th Infantry Division from the south and the British Eighth Army from the east.

Both Fifth U.S. and British Eighth Armies now raced to the Po before the enemy could withdraw across the river. On 23 April, the 10th Mountain Division crossed the Po in assault boats in the face of heavy enemy fire.

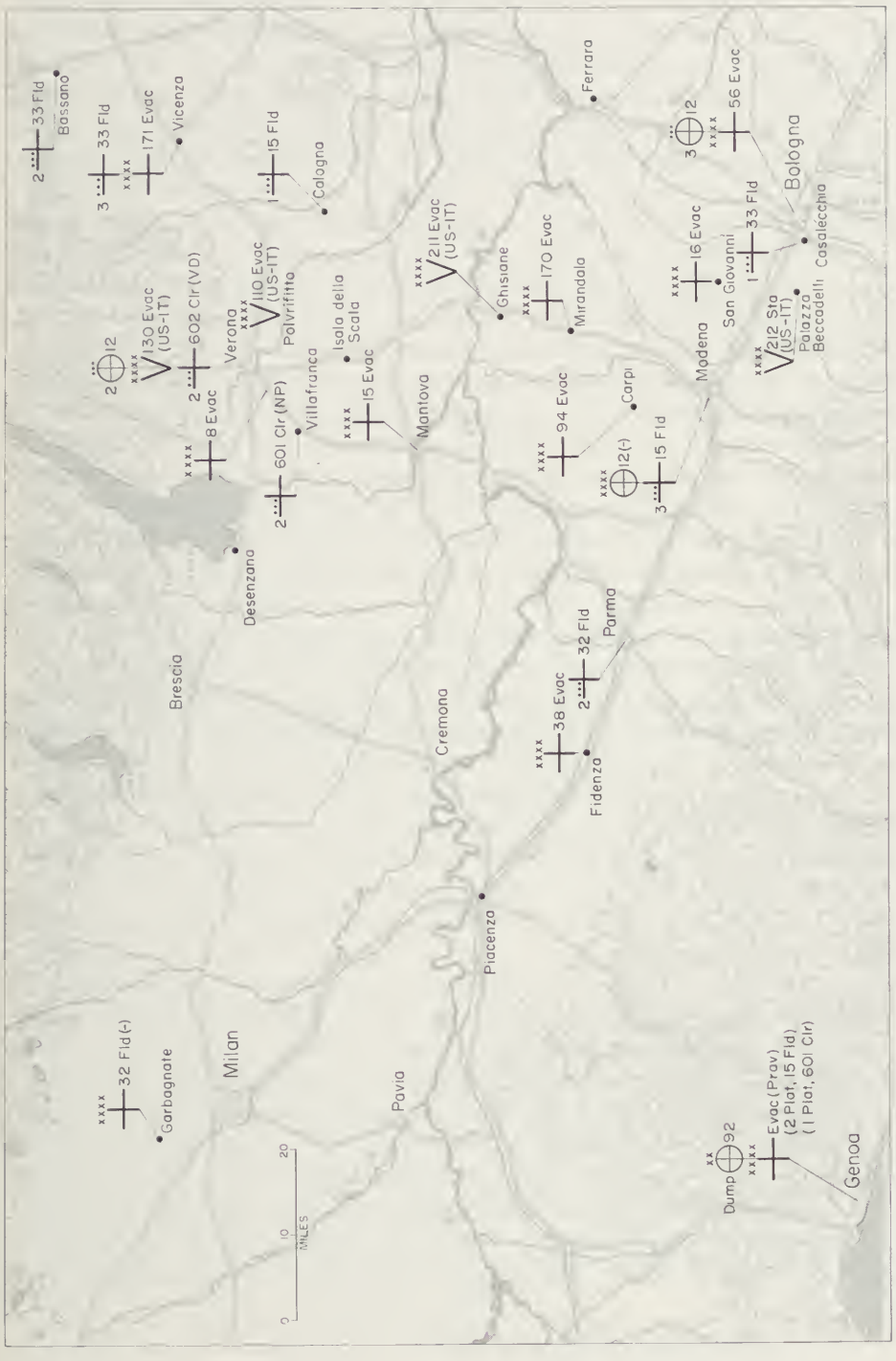
The next day, the 85th Infantry Division was across, followed by the 88th and 91st Infantry Divisions. Verona fell to the 88th Infantry Division on 25 April. The Fifth U.S. and British Eighth Armies fanned out toward the borders to cut off all avenues of escape. Resistance was confined to pockets of isolated enemy forces, but the 10th Mountain Division had to fight its way to the head of Lake Garda. Meanwhile, the 92d Infantry Division, after a week of bitter fighting, broke through the mountain defenses of La Spezia. The 473d RCT entered La Spezia on 23 April and, 4 days later, moved into Genoa, 100 miles up the coast. The 442d RCT drove inland from La Spezia and made contact with the IV Corps. On 2 May 1945, all German forces in Italy were surrendered, and the Italian campaign was over (map 13).

Psychiatric Casualties

Battle losses and psychiatric casualties were moderately heavy in the initial days of the offensive. After the breakthrough into the Po Valley, there was a precipitous decline of all casualties in Fifth U.S. Army units, except for the 10th Mountain and 92d Infantry Divisions. Division psychiatric facilities were well prepared and operated with a high degree of efficiency during the assault phase of the fighting. However, the pursuit and rapid movement that followed outran, for brief periods, the supporting medical facilities, including the division training and rehabilitation centers. This was of little consequence, however, as psychiatric casualties were almost nonexistent during this time. Indeed, the high morale and motivation generated by the rapid advance apparently induced many of the psychiatric casualties, of the early severe fighting, to request return to their combat units. This phenomenon of a victorious outcome increasing the return-to-duty rate of psychiatric casualties had been previously noted in the Rome offensive. In the 5 April–2 May 1945 period, events were even more favorable, with the end of the war being imminent.

The later and rapid phase of this offensive served as a final demonstration that physical fatigue alone, or associated with a favorable tactical situation, was not productive of psychiatric casualties. At this time, the 85th Infantry Division psychiatrist, concerned over the nonarrival of psychiatric casualties at his division training and rehabilitation center, went forward to see whether 85th Infantry Division cases were being evacuated through one of the other divisions. In discussing the problem, unit commanders and battalion surgeons seemed puzzled as to why anyone would expect "exhaustion" cases when there was so little enemy opposition and practically no battle casualties.

In moving about the Po Valley, the psychiatrist observed many obviously tired soldiers whose weariness was clearly evident in posture, gesture, and speech. Brief conversation with some of these men revealed that they had been on the move for days with little sleep. Yet none displayed



MAP 13.—Fifth U.S. Army hospitals, 2 May 1945.

manifestations of anxiety or other characteristics of psychiatric casualties. Rather they seemed in good spirits, responding to questions with short, colorful, jocular comments, and indicated that, while sleep or rest would be highly desirable, "nervousness" was not present.

10th Mountain Division.—In spearheading the Fifth U.S. Army offensive, the 10th Mountain Division engaged in more combat days in the intense assault phase than other divisions of the IV or II Corps. In addition, as the first division to cross the Po River, it encountered heavy enemy opposition. Finally, after a brief but furious terminal fight, it secured Lake Garda. As a result, the division sustained more battle casualties (1,687) than other divisions, and 266 psychiatric cases. This ratio of 1 psychiatric casualty to 6 battle casualties, while less than that during the previous or initial combat period, was still impressive. Major Thorne, the division psychiatrist, explained the increase of psychiatric casualties in this offensive as due to a greater intensity of battle, to prolonged marches and insufficient rest, and to a higher proportion of new replacements owing to battle losses of a previous period. Of the 266 casualties, 76 percent were returned to duty—again an excellent result. Operation of the Fitness Center was as previously described, except for the common difficulty of moving the psychiatric unit often enough to keep pace with the rapid advance of the combat elements.

92d Infantry Division.—For the 92d Infantry Division and attached 442d and 473d RCT's, the more intense assault phase of the offensive was also of long duration (5–23 April) due to well-defended, extensive, rugged mountainous terrain which had to be traversed and secured before the division's major objective of La Spezia could be taken. The 1,554 wounded casualties sustained by the division were exceeded only by those of the 10th Mountain Division. A majority of battle casualties came from the 442d and 473d RCT's which bore the brunt of the fighting, as the 365th and 371st Regiments were withdrawn from the 92d Infantry Division early in the offensive according to plan and transferred to IV Corps control.

Captain Holloman, of the 92d Infantry Division, reported 332 admissions to the division psychiatric unit during this offensive, most of which were from the 442d (105) and the 473d (150) Regimental Combat Teams.[70] Treatment at the 92d Infantry Division training and rehabilitation center was similar to that conducted in other divisions, with 1 to 2 days of rest and recuperation and 2 days of training activities. Captain Holloman also noted early that heavy sedation during the rest period only increased recovery time. For this reason, 3 grains of Sodium Amytal were utilized as required to insure one good night of sleep, with 6–12 grains to control a severe anxiety reaction. Of total cases received and treated at the division training and rehabilitation center, 63 percent returned to duty—an excellent result.[71]

The final and unhappy results of a segregation policy which created

[70] See footnote 65, p. 94.

[71] History of Division Psychiatry, 92d Infantry Division.

Negro combat units were revealed during this offensive, when it was deemed necessary to fragment the 92d Infantry Division, substituting other regiments in place of Negro units to insure accomplishment of the tactical mission. That the results of segregation were also shattering to the morale of the Negro soldier was stated most poignantly in a letter addressed to the editor of the *Stars and Stripes*, the Army daily newspaper overseas, and published in its 8 June 1945 issue.[72] In this letter, the writer, identifying himself as a private of the 92d Infantry Division, expressed not anger or blame but rather doubt, bewilderment, loss of esteem, and hurt, relative to the participation of Negro soldiers of the 92d Infantry Division in the final offensive and the victory of the Fifth U.S. Army in Italy.

It may be argued that segregation worked well in the Japanese-American 442d RCT, but there were two important differences. First, the loyalty, and thus patriotism, of the Japanese-Americans were questioned, not their capability. The issue was made crystal clear to all concerned, particularly the Japanese-American group, promptly after the attack upon Pearl Harbor. All that was required was a demonstration that they were willing to fight and, if necessary, to die for the United States, and thus prove their loyalty not only for themselves as individuals but also for their families and the Japanese-American community. Second, the Japanese-American unit was mainly a volunteer group.

Conversely, the loyalty of American Negroes was never questioned. The problem was rather a longstanding bias that assumed basic inferiority, and the inequality of opportunity for the Negro, which could never have been resolved by fighting the Germans and was only given more emphasis by segregation. Also, the 92d Infantry Division and other Negro combat units were not composed of selected volunteers.[73]

Other divisions.—For the veteran divisions of the Fifth U.S. Army, the final offensive produced a small to moderate incidence of battle casualties and psychiatric cases which occurred mainly in the several days of the assault phase. Pertinent statistical data from 1 April to 15 May are shown in table 1.

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[72] Dear Editor: Many of us here in the 92d Division have been wondering and arguing among ourselves, as to why the 442d and 473d Regiments fought with the 92d Division. There have been different views and opinions about this happening. Yet all of us agree that it was a profound shock to us.

I would like to know whether this was to prove that Negroes can't fight together, without the so-called inducement of a white regiment to sting us into activity; or was it to prove (after certain unfortunate setbacks, like the setback in the Serchio Valley, where we had one regiment, yet the division was ridiculed) that we were too illiterate to fight; or that Mr. Truman Gibson's illiterate Negroes were afraid of the big bad Germans, and that we would run everytime we saw one of the master race.

Well, whatever it might have been, many of the illiterates died. If they ran, the Germans certainly caught up with many of them. You see, a German shell or mine does not ask for your name, race, religion, and what school you attended last. It just kills you. That is very simple, don't you think?

Whatever was proved, one thing sure, we did not share and are not sharing in the glory of the defeat of the Germans in Italy. Thank God the men who died do not know of this. We are sorry we did not live up to the expectations of the newspapers and magazines (such as *News Week*) as a political division. We will try to do better next time.—Private, 92d Division.

[73] It was commonly known that the 332d Fighter Group, a Negro unit commanded by a Negro officer, Col. Benjamin O. Davis, Jr., performed its combat missions well in the Mediterranean theater.—A. J. G.

TABLE 1.—*Incidence of battle and psychiatric casualties, and percentage of psychiatric casualties returned to duty, Fifth U.S. Army, 1 April–15 May 1945*

Division	Battle casualties [1]	Psychiatric casualties [2]	Psychiatric casualties returned to duty [2]
	Number	*Number*	*Percent*
1st Armored	426	70	72
34th Infantry	349	74	48
85th Infantry	146	28	65
88th Infantry	809	86	54
91st Infantry	756	87	53

[1] Wiltse, Charles M.: The Medical Department: Medical Service in the Mediterranean and Minor Theaters. United States Army in World War II. The Technical Services. Washington: U.S. Government Printing Office, 1965, p. 468.

[2] Semi-Annual Report, 1 January–30 June 1945, Consultant in Neuropsychiatry, Office of the Surgeon, Mediterranean Theater of Operations, U.S. Army.

The "601st"

In this last brief push to victory, all medical services were confronted with the need for maximum mobility and flexibility. Necessarily, the psychiatric services had to depend heavily on the intradivisional services which have already been described. The 601st was still located on Highway No. 65. Highway No. 64 (Pistoia to Bologna) to the west of Highway No. 65 also became a major axis in the initial days of the final campaign. To meet psychiatric needs which might develop in hospitals located along Highway No. 64, Capt. Harold S. Wright, MC, was designated as "roving psychiatrist." He coordinated the handling of psychiatric patients in this area, which could not be served directly by the 601st.

As the front advanced and broadened rapidly, medical units in the Fifth U.S. Army followed as closely as possible. The 601st was no exception, and continued to function as the Army neuropsychiatric center until the end of the campaign despite several necessary changes in location. Its final location (2 May 1945) was about 5 miles southwest of Verona on Highway No. 62, near Villafranca di Verona.

IMMEDIATE POSTWAR EVENTS

The Mussolini Brain Incident

Because of mild, international misunderstandings which subsequently developed, the circumstances under which Major Drayer became involved with Mussolini's brain should be recorded briefly.

It was known that Mussolini had been infected with syphilis. His

grandiosity suggested that his brain might have been affected. Shortly after the dictator's assassination on the shore of Lake Como, the Surgeon, Fifth U.S. Army, received a request from the Surgeon General's Office, in Washington, to obtain a block of tissue from Mussolini's brain, if possible. Major Drayer was assigned this mission which he accomplished with the help of two young Italian liaison officers. Confidentiality was guaranteed to the Committee for National Liberation Northern Italy by Major Drayer in the name of the Surgeon, Fifth U.S. Army. For reasons which have never been determined, this guarantee was subsequently violated by such columnists as Walter Winchell, Albert Deutsch, and Westbrook Pegler.

The block of tissue from the badly damaged brain was from the left post central gyrus. Sections revealed no evidence in this specimen of reaction to syphilitic infection. The microscopic findings of Dr. C. Mario Cattabeni, coroner of Milan, who performed the autopsy have never been published. Access to these findings requires special permission under conditions specified by the Italian authorities.

In April 1966, this tissue was returned to Mussolini's widow by the U.S. Department of State.

Self-Inflicted Wounds

With the end of hostilities in Italy, numerous instances of self-inflicted wounds occurred in several divisions (1st Armored, 85th and 88th Infantry, and 10th Mountain). These wounds were presumably caused by carelessness in the handling of captured small arms, particularly German and Italian. These captured articles became prize souvenir items and were readily available to the combat troops. Obviously, such self-wounding bore no relationship to the avoidance of battle which would have been a major causal assumption during the previous combat periods. Moreover, an evaluation of some of these individuals revealed no evidence of depression, suicide intent, or fear of returning home. Yet it seemed difficult to believe repeated stories of carelessness in men familiar with firearms, albeit not these particular small foreign weapons. One could only speculate that underlying guilt or other unconscious causes related to combat experiences of the individual were operative, but no substantiating evidence could be found.

As some of these self-inflicted injuries were serious, a practical approach of prevention was taken. The various divisions involved issued orders for all captured enemy weapons to be turned over to the respective ordnance company, with a promise that each weapon would be tagged with the owner's name and returned at the time of departure for home. The order was obeyed, self-inflicted wounds ceased abruptly, and from the author's (A. J. G.) personal experience, the promise to return the weapons was kept.

"Enjoyment of Combat"

During the war, the division psychiatrist occasionally heard of individuals who enjoyed combat. Obviously, such a person would not be referred to the psychiatrist unless he was overtly psychotic. Several days after hostilities had ended and the psychiatrist of the 85th Infantry Division (Major Glass), like others, was enjoying life in the Italian Alps, a jeep load of sergeants, all members of the 85th Infantry Division, arrived looking for him. The spokesman of the group gave the following story: Sergeant X was a fine fellow, brave and courageous; he had won the Silver Star and was in the process of receiving another combat award; a wonderful and reliable person to have with you in battle—cool, calculating, and resourceful. But since combat was over, he had been restless, seemed to go on patrol every night, shot out the lights at their parties, prowled around, and was altogether a menace. Would the Major please take care of him?

The sergeant was then brought in and his friends left. He appeared to be embarrassed and somewhat apologetic, stating that he liked all of these fellows and meant no harm. However, he was bored and restless since combat was over, and had to do something exciting. Could it be arranged that he go to the Pacific theater where there was still fighting to be done? The sergeant pointed out that he must avoid any disciplinary difficulties as he had been paroled to the Army from a State prison where he had been serving a sentence for manslaughter. Satisfactory completion of parole was dependent upon obtaining an honorable discharge. Upon questioning, the sergeant admitted that he liked the excitement and thrill of combat and danger. Also, that he was easily roused to anger, had no real close friends in civil life, but liked his buddies in his unit. None of the usual manifestations of psychosis were evident. Here was a complex problem: an individual normal or useful in combat, yet pathologic in peacetime. No doubt that he was an odd or schizoid person, but was he schizophrenic? He was evacuated to the 601st for further evaluation. Unfortunately, no followup was obtained.

RESULTS

Followup studies to obtain information on the effectiveness of psychiatric casualties who were returned to combat duty, conducted by several division psychiatrists, are summarized as follows:

91st Infantry Division.—Major Kauffman reported on 207 men returned to combat duty, which represented one-fifth of all cases returned to duty in his series of psychiatric admissions to the training and rehabilitation center. At the end of the war, 130, or 62.8 percent, were still on duty, 29, or 14 percent, had become disciplinary problems, and 21, or 10.1 percent, recurred as psychiatric admissions.[74]

[74] See footnote 24, p. 63.

34th Infantry Division.—Major Sobel surveyed 200 psychiatric cases returned to combat duty. No period of time was noted as a requirement for effective performance in this study. Of the 200 cases, 55 percent proved to be valuable members of their units, 20 percent promptly recurred as psychiatric casualties, and 12 percent became disciplinary problems. Others remained on duty, but were of negligible value. Soldiers who were rated as inefficient before breakdown did much more poorly upon return to duty than did those who had efficient ratings.[75]

88th Infantry Division.—Major Slusky reported on 250 psychiatric casualties returned to combat duty. Again, no required period of time after return to duty was given in this study. He found that combat efficiency in this group was rated before breakdown as 82 percent average or better than average performance. After return to duty from the division training and rehabilitation center, the same group was rated as 52 percent average or better performance. Unfortunately, 28 percent were placed in an undetermined status due to failure in obtaining information or individuals were moved, or were in the units too recently for evaluation of combat performances.

85th Infantry Division.—Major Glass reported on 393 psychiatric casualties who were returned to combat duty during the Gothic offensive (13 September–22 November 1944). The criterion of effectiveness was the performance of 30 days' offensive combat, or 60 days of defensive combat, rated as either average or better function by pertinent unit officers or noncommissioned officers. Failure to perform such duty for other than combat reasons (killed, missing, or wounded) was arbitrarily judged as noneffective. Under this stringent criterion, 48.7 percent of returnees to combat duty were rated as effective. When compared to return to combat duty by hospitals for wounds, noncombat injuries, or disease, using the same criterion, psychiatric returnees were as effective as returnees who had been hospitalized for injury and disease, but were less effective than the wounded returned to duty, who gave 72 percent average or better performance. The crux of the problem was the finding that, of psychiatric casualties rated as effective before breakdown, 73.5 percent were similarly effective upon return to duty. Conversely, of those rated as noneffective before evacuation as a psychiatric casualty, only 6 percent were rated as effective upon return to combat.[76]

Summary.—From the studies just cited, it can be concluded that—

1. Somewhat more than 50 percent of psychiatric casualties who were returned to combat duty by division psychiatric treatment units rendered effective combat service.

2. The vast majority of individuals who were effective before acute breakdown can be restored to effective combat duty by forward psychiatric

[75] Psychiatric History, 34th Infantry Division, p. 9.

[76] Glass, A. J.: Effectiveness of Forward Neuropsychiatric Treatment. Bull. U.S. Army M. Dept. 7: 1034–1041, December 1947.

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treatment. Those with chronic difficulties, or individuals never able to function effectively in combat, cannot be expected to be improved by brief techniques of forward treatment. Neither can persons with chronic anxiety states from repeated battle trauma be aided by division psychiatric treatment. However, replacements with mainly anticipatory anxiety and no substantial combat exposure can be helped by management at the division training and rehabilitation center, particularly during the training phase of the program, which aids in building confidence in battle tactics and the use of weapons.

CONCLUSION

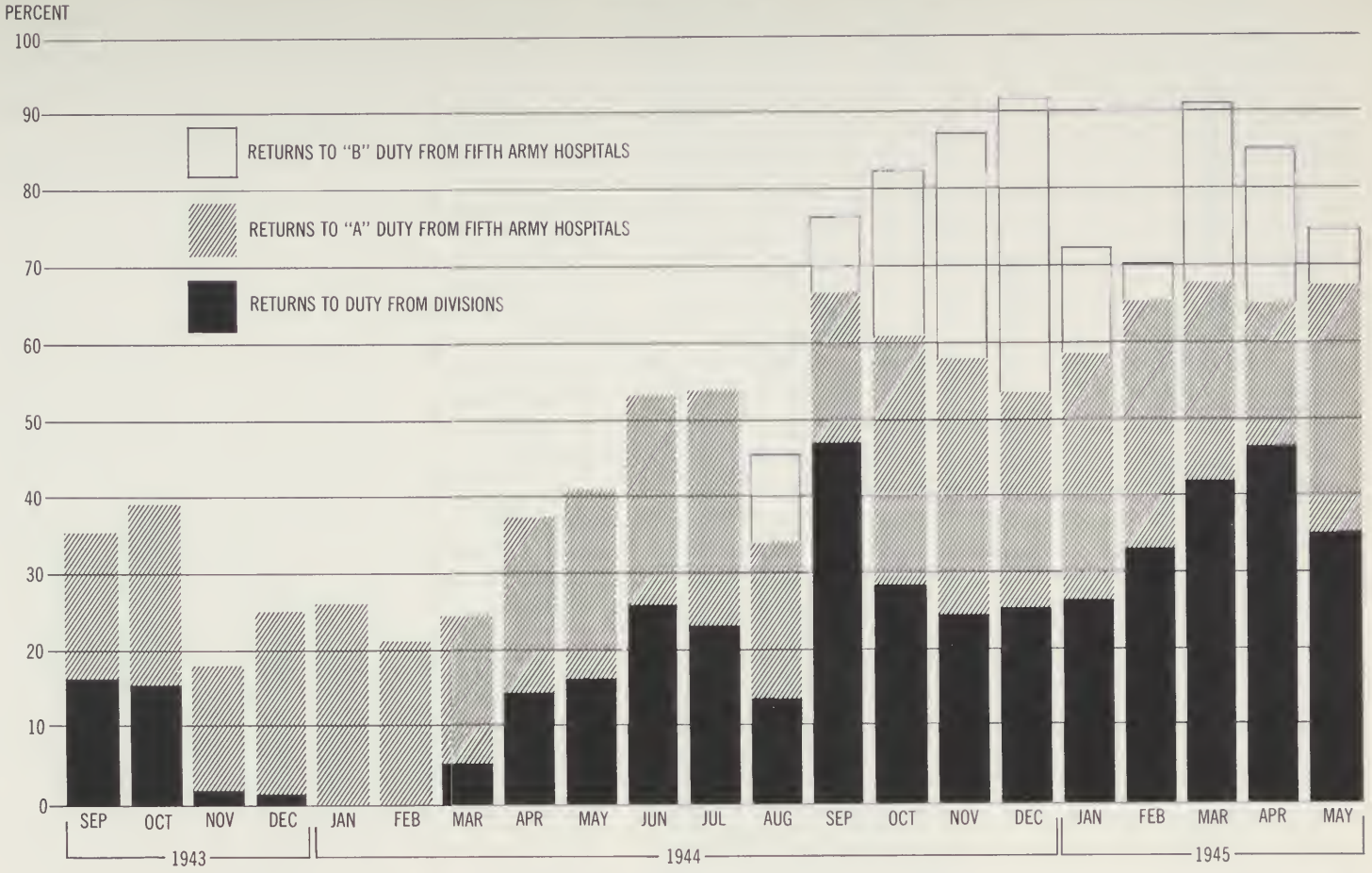
The gradual improvement of psychiatric services from all levels in the Fifth U.S. Army may be sensed from the "return to duty" graph (chart 1). The absolute values that were served by the development of the program probably cannot be proved statistically in a conclusive fashion. Suffice it to point out that in a broad, but humanly significant sense, this chart parallels roughly the growing sense of value in what they were doing which developed in those engaged in providing competent psychiatric service for the Fifth U.S. Army during the Italian campaign.

The concepts which contributed to such psychiatric success as was attained in Italy are well presented in the articles published in the supplemental issue of the November 1949 *Bulletin of the U.S. Army Medical Department*. The essence of these concepts can be found in the following statement taken from the World War I history of neuropsychiatry:[77]

> * * * stated broadly these principles were: First, that it is not only in accordance with the best scientific practice to treat soldiers suffering from war neurosis as early and as effectively as possible but to do so is an important contribution toward the conservation of manpower and military morale; second, that a point of view regarding these disorders based upon a rational conception of their physiological and psychological origin should at all times be maintained and should form the basis for medico-military effort; third, that in neuropsychiatric work, as far as exigencies of actual service permit, responsibility and leadership should rest in the hands of those who had had special training in this department of medicine.

[77] The Medical Department of the United States Army in the World War. Neuropsychiatry. Washington: U.S. Government Printing Office, 1929, vol. X, p. 271. The values of these basic concepts were confirmed in every detail by Fifth U.S. Army experience in Italy during World War II.

CHART 1.—*Return to duty of psychiatric patients, Fifth U.S. Army, September 1943–May 1945*



Source: History, Fifth Army Medical Service, 1945, p. 156. [Official report.]
Note.—Figures for this chart are essentially those listed in the source; percentages have been altered slightly where errors appeared in the original table.

CHAPTER IV

Psychiatry With an Infantry Battalion in North Africa[1]

Herbert Spiegel, M.D.

GENERAL OBSERVATIONS[2]

Living as I did at the infantry company and battalion level, I could observe the evolving circumstances which led to psychiatric casualties among the men, many of whom I got to know fairly well. We existed in a weird atmosphere composed of waiting, tension, boredom, confusion, furious activity, and, at times, wretchedly dull monotony. In fact, the rigors and hardships that these men had to endure are difficult to describe. Only a master reporter like Ernie Pyle has accurately recounted the many seemingly insignificant details that reveal these men not as stereotypes but as human beings trapped in the unwelcome role of a combat soldier. Similarly, the artistry of Bill Mauldin's cartoons (figs. 11, 12, and 13) has conveyed the confusion, irony, and despair caused by forced inactivity and furious action.

The battlefield was the one place where war became an acutely personal, rather than an abstract, affair. Before his first exposure to enemy gunfire, the average soldier worried about such matters as "How am I going to meet it?" "Will I be able to control myself?" "Will I do what they expect of me?" After the first few hours, however, this uncertainty was replaced by a mounting confidence in himself. Soon his thoughts turned to his chances

[1] This chapter, a personal account of psychiatry in an infantry battalion, is based on material already published (see (1) Spiegel, H.: Psychiatric Observations in the Tunisian Campaign. Am. J. Orthopyschiat. 14: 381–385, 1944; (2) Spiegel, H.: Preventive Psychiatry With Combat Troops. Am. J. Psychiat. 101: 310–315, November 1944; and (3) Kardiner, Abram, and Spiegel, Herbert: War Stress and Neurotic Illness. New York: Paul B. Hoeber, Inc., 1947). However, it is considered entirely appropriate to include it in this volume so that the history of combat psychiatry in World War II, from the most forward to the rearmost combat echelon, is readily accessible in one source. Further, the account is unique in that it is related by a trained psychiatrist who through error, before the authorization of division psychiatrists, was assigned as an infantry battalion medical officer during a time of active combat. Thus, at the battalion level, Dr. Spiegel was in a prime position to observe the circumstances, manifestations, and underlying causative mechanisms of combat psychiatric breakdown.—A. J. G.

[2] I was a psychiatrist assigned as an infantry battalion medical officer who lived with and served about 1,000 soldiers during the four major engagements of the North African campaign, including one amphibious operation. In January 1942, I left my psychiatric residency at St. Elizabeths Hospital, Washington, D.C., and the Army assigned me as a psychiatrist to the Fort George G. Meade (Md.) Station Hospital. In June 1942, some specialty classifications were cut across to supply the combat units with their quota of medical officers while on their way overseas. Thus, within 48 hours, I was obliged to shift from being a hospital psychiatrist to becoming an assistant battalion surgeon with the 1st Infantry Division; I joined this division the evening before it boarded the *Queen Elizabeth* on its way to Scotland, then to North Africa. Because I was not an official visiting observer, but rather a disgruntled, drafted, and at times frightened participant, I was able to *share* a common experience with most of the men I am writing about.—H. S.

"Hell. When they run we try to k...ch 'em. Whe... to make 'em run." ...thin' serious—just ...teries."

FIGURE 11.—Cartoons, combat experience. [Reprinted by courtesy of Bill Mauldin.]

"Hit th' dirt, boys!"

"Wisht I could stand up an' git some sleep."

FIGURE 12.—Cartoons, battle stress. [Reprinted by courtesy of Bill Mauldin.]

"How ya gonna find out if they're fresh troops if ya don't wake 'em up an' ask?"

"I'm beginnin' to feel like a fugitive from th' law of averages."

FIGURE 13.—Cartoons, battle stress. [Reprinted by courtesy of Bill Mauldin.]

of being killed or wounded; he started weighing the advantage of a wounded arm over a wounded leg, of having a limb blown off as against an eye blinded. The battlefield became the reality where a man faced the utter finality of being killed.

These men did not feel like romantic heroes who had charged forth in the face of danger to rid the world of evil forces. Nor were they, as many thought, tough characters who loved to fight. By and large, they were sober, realistic, peace-loving citizens who much preferred a baseball field to a battlefield. Most of them served in our Army as a result of selection. It should be noted that they expressed very little real hate for the enemy. Rather, acutely aware of the dangers ahead, they attacked and pushed forward simply because they were commanded to do so.

Although the men realized that there was a tough job to be done and that it was now their turn, they also watched to see what the other fellow was doing. As one GI put it, "I see my job and I'll do it. I hope the other fellows do their share too." By "other fellows" he meant not the men at his side (of whom he was sure) but rather the men in back of his outfit, and the men in back of them along thousands of miles of land and water. Despite these worries, however, the GI did push forward as ordered.

If abstract ideas, hate, and the desire to kill did not motivate the men, what did? What enabled them to attack and attack and attack, week after week in mud, rain, dust, and heat? It seemed to me that the answer lay not in any negative drive but in a positive one. It was love more than hate that propelled these men. This love was manifested in a number of ways: in regard for their comrades who shared the same dangers; in respect for their platoon leader or company commander who led them well and supported them with everything he had; in concern for their reputation with their leaders; and in the urge to contribute to the success of their group.

MORALE FACTORS

Morale seemed to be predicated on a positive principle. The men were fighting for somebody rather than against somebody. When our Pioneer Platoon Leader had to be evacuated due to a wounded shoulder, he protested tearfully and begged to be allowed to stay, not because he wanted to fight and kill but, because, as he explained, "I just can't leave the fellows now—they need me."

Then there was the time our young Supply Officer spent 2 days and nights at one stretch working continuously, getting food and supplies up to his men under the most trying conditions. Instead of trying to get a few hours of sleep, he asked me for Benzedrine (amphetamine) so he could keep awake and go on.

There was no doubt that the men were fighting for themselves and their unit and, in that way, for their country and their cause. In time, the

interpersonal relationships among the men and between the men and their officers grew more important and intense. These cohesive forces, through which a man identified himself as part of his unit, enabled him to muster up sufficient courage in the most trying situations. At times, a soldier surprised even himself with his gallant heroic acts.

Some of the outstanding displays of heroism occurred when medical aidmen and comrades helped a wounded soldier. On the other hand, a frequent precipitating cause for a psychiatric breakdown was the failure to rescue a comrade.

One ingredient, most interesting though not quite clear, was something I called the "X factor"—something that corresponds to courage, something whose presence indicated good morale. Whether this X factor was conscious or unconscious does not matter. What is important is that it was greatly influenced by a man's devotion to his group, by his regard for his leader, and by his conviction that his cause was right. It seemed to explain why a tired, disgruntled soldier who had the clinical appearance of an anxiety state could keep on going, and why some units could outdo others. Apparently, it helped a man to control the ever-present fear and to resist fatigue.

The X factor was not so prominent in those fighting men who were the most stable; they had an innate ability to carry on no matter what happened. But for the majority, who were average soldiers, this factor played an enormous part. Here was the critical component that often determined whether or not a man would be overwhelmed by his fear, anxiety, and fatigue. Here was something that often decided whether or not a man became a psychiatric casualty. Here was the Achilles heel that was vulnerable to news of strikes and profiteering back home and to disregard for the men at the front.

On the battlefield, leaders, especially junior officers and noncommissioned officers who had direct personal contact with the men, exercised a great influence on them. Good leadership and intensified comradeship produced good morale, which in turn led to good performance and a low psychiatric casualty rate. Here, the X factor was so strong that it enabled men to control their fear and fight their fatigue to an extent they themselves would have thought impossible.

Good morale, as the officers soon learned, was a fluctuating emotional state. Maintaining it required constant attention. In combat, the company commander or platoon leader could not satisfactorily answer such abstract questions as, "Why are we fighting?" "Why the profiteering and strikes?" But at a more concrete level, he was in a position to manipulate morale. He arranged for his men to get the best food under the circumstances. He sent blankets up to them at night if at all possible. He made every effort to keep them well supplied with water and ammunition. He saw that promotions were fair. He made certain that good work and gallantry received

recognition. He got mail, news, and information to the men whenever possible; and he made sure that violations of rules were dealt with justly and quickly.

By these actions, the leader made his men feel that they were not alone, that he was doing everything humanly possible to support them. Such efforts, plus technical ability, constituted good leadership.

Because of the intense group identification, the recurrent security threat, and the ever-present undercurrent of concern about "my" role participation as compared with that of the "other," the men interpreted some patently insignificant events as meaningful signs or messages.

The tampering with C-rations in the rear echelons illustrates the point. The biscuit case contained 24 cans of hard biscuits and smaller cans of either powdered coffee, chocolate, or lemon to be used with canteen water. The cases were packed so that each contained eight cans with coffee, eight with chocolate, and eight with lemon powder. The chocolate was so favored over the others that the men played a game during periods of boredom trying to identify the chocolate can by the sound it made when shaken. Several times, when a supply shipment arrived, it was discovered that the cases had been opened, then reclosed; the chocolate cans, selectively removed, had been replaced with cans of lemon powder. In retrospect, this seems trivial and even silly. Nevertheless, I still recall the impact it had on the men. "Is that what they think of us! They steal from us and then send us what they don't want."

Cigarettes furnished another example. For many men, they were one of the valued luxuries. When available, they were distributed fairly; for example, four packages per man. Of these, however, one was Chesterfields—or another major brand—and the other three packages were, say, Chelseas. The issue was not whether Chelsea cigarettes were as good as Chesterfields, or whether any men could differentiate them in a blindfold test. Rather, the essential point was the implication of sending these cigarettes all across the ocean, across the Continent to the frontline, with a brand name that was considered to be second rate. To the combat soldier, the message was: "You got what was left. Be glad with what you got." In contrast, he wanted to feel that the people back of him would exert themselves to send him the best available supplies. If sending second-rate cigarettes is "a sampling of the quality of the concern they have for me, what else am I getting or not getting that reflects the same feeling back there?"

These nonverbal messages hit hard. They exemplify definite morale issues whose impact is due to the immediacy and the stress of the combat atmosphere. Just as nonverbal messages can be encouraging if they imply, "We're with you completely," so they can be disturbing if they say, "We're with you half-heartedly."

The battle situation tested a range of adaptive abilities. It became apparent that when a soldier was well fed, healthy, rested, relating well

to his team and his leaders, contented and without resentment, well trained, confident of his weapons, of high morale (as when his side was "winning"), he perceived danger and threats to his life differently from when he was underfed, in poor health, exhausted, fatigued by monotonous tasks, relating poorly to his team and without trust in his leaders, discontented, inadequately trained, without confidence in his weapons, and of low morale (as when his side was "losing"). In these two situations, his interpretations of events, his ability to muster resources, and his capacity for effective action differed radically—even though his actual perception of danger was the same in both cases.

PSYCHIATRIC CASUALTIES

The vast majority of psychiatric casualties that I saw were acute, amorphous anxiety states. Psychotic breakdowns were rare, as were conversion hysterias. These two types obviously did not belong at the front and were immediately evacuated.

Just how many anxiety states occurred was difficult to estimate because we could count only those who were evacuated to the rear; and many of them, perhaps most, were never evacuated. They remained at their posts and fought until the battle was over. Only then did their anxiety subside. Whether or not an anxiety-state case was evacuated often depended on reasons other than clinical symptoms. The battle situation, the need for men, the time of day or night, the weather, the terrain, the accessibility to the rear—all had something to do with the decision.

It soon became apparent that a tense, tremulous soldier was not necessarily a psychiatric casualty. Of course, if we made him one and sent him back he became one. But often he was not a casualty simply because he was not permitted to be one, as will be seen in an illustration given later.

A state of tension and anxiety was so prevalent in the frontlines that it had to be regarded as a normal reaction to that grossly abnormal situation. Where did ordinary psychological and physiological signs of fear end and where did symptoms of a clinical syndrome begin? This was often impossible to determine. The fact remained that some gallant and heroic work was done by men and officers in acute anxiety states, and that much combat accomplishment was achieved by ordinary men experiencing severe anxiety.

The overt symptoms ranged from a feeling of tension, dry mouth, palpitation, and mild tremors to marked tension with increasing sensitivity to noises of any kind, severe trembling, screaming, crying, running about in confusion, and almost complete disorientation. The extreme states were not common. While the various degrees of this state could no doubt be classified and subdivided into any number of types, we were at the time concerned with only two kinds: those who stayed and those who were

evacuated. After evacuation, the amorphous clinical picture gradually became clearer and more subject to diagnostic subtyping.

One thing that all these cases had in common, besides fear, was fatigue or exhaustion. Fatigue was not only the result of physical exertion and lack of restful sleep, but also the product of a constant state of tension and anxiety.

A striking feature of the incidence of psychiatric casualties was the difference in the clinical picture between the men and the officers. The men covered the whole spectrum, with the predominant clinical group in the middle diffuse-anxiety group closely related to the morale issue previously discussed. In contrast, although the incidence of psychiatric casualty with officers was low, when officers did become such casualties, their reactions were almost always so severe that no treatment in the combat area was feasible. A typical picture was an acute confusional state with almost total disorientation, depersonalization, and suicidal tendencies. On two occasions, we had to restrain young officers forcibly from shooting themselves. I had reason to suspect that more than one officer listed as "killed in action" in fact experienced a psychotic breakdown and committed suicide before he was detected and helped.

PSYCHIATRIC TREATMENT AND DISPOSITION

The medical officer soon realized that military medicine during combat was distinctly different from civilian medicine during peacetime. The traditional sympathy expected from the physician had to be present, of course, but in a much broader manner because, as previously noted, the physician had to be aware of the total situation even while treating one particular soldier. The medical officer had to focus his sympathy upon the men who were struggling with themselves to remain at their posts and to continue the fight as ordered. Thus, out of regard and concern for those who carried on, medical care at times assumed an outward air of bluntness and sternness.

No one could question the therapeutic value of authority during combat. Forms of therapy based on the development of insight had little value here. As stated previously, many psychiatric casualties did not occur simply because they were not permitted to. During one of the more difficult engagements in Tunisia, our battalion underwent a series of enemy bombings and strafings for several hours while launching an attack. One of the medical aidmen, after a number of harrowing experiences, became confused and disoriented, sobbed loudly, and begged to be evacuated. Because in the face of the heavy casualties and the dangerous battle situation every medical soldier was sorely needed, his medical officer was forced to limit drastically the number evacuated. Grabbing the confused, tearful soldier, the officer told him in no uncertain terms that he was letting everyone down and failing those who were continuing the fight. He was sternly ordered to dig

himself a foxhole and to stay there until ordered otherwise. This he did.

At dawn the next day, he came to the medical officer asking, in a halting, apologetic way, to be forgiven for his behavior; he also expressed the hope that the whole incident would be forgotten if he continued his assigned duties. He was assured that his behavior had been understandable, but that it could be controlled. Then he was assigned to work. For the next 2 months, this man carried on efficiently as a litter bearer and jeep driver, until his hand was wounded in a bombing raid. By almost any clinical standards, this soldier was certainly a psychiatric casualty when he pleaded for evacuation. Because of forceful immediate action, however, he was able to conquer his acute anxiety and to function again. Like many others, this incident demonstrates that there is no more fertile ground for strong, authoritative, suggestive therapy than a battlefield.

Maintaining close contact with the unit became a central theme for effective psychotherapy. We gradually learned that once a soldier broke contact with the group with which he had a meaningful tie—be it platoon, company, battalion, regiment, or division—then, for all practical purposes, he was lost to that combat unit. Readjustment to the less dangerous and more comfortable echelons of the vast complex called "the army" was so tempting that it negated any strong urge to return to his former combat post. Besides, the feeling of "why not somebody else for a change?" was ever present.

Thus, a critical point of treatment for psychiatric casualties was that fluid, confused period just after the impact of what the soldier experienced as a "crack" or a "breakdown." Almost any influence by a comrade, aidman, or officer that helped suppress fear and guided the man toward quick reparation and reorientation was the psychotherapeutic method of choice. The technique could be a wisecrack, an insult, an appeal to group need, an arm around his back, a diversion of interest away from his panic, or the ultimate concession: the medical officer's permission to go back as far as the company kitchen area to rest with the kitchen crew. This area was an important haven of relative relief; it was often in fact safer, and it was also the only spot in the rear that offered meaningful person-to-person contact with the combat units to which the soldier under treatment belonged. There, it was still reasonable to expect self-instituted rehabilitation aimed at rejoining the same group—without the pampering of the perplexed and often guilt-ridden personnel so often found to the rear of the regimental lines, especially in the medical chain of evacuation.

To illustrate: J. S. was a platoon staff sergeant who had been with his outfit since 1940, and had had much battle experience. He knew all the men, was familiar with their personal characteristics, and used fine judgment in handling his men and selecting them for special assignments. He was a hard-working and efficient noncommissioned officer.

For 2 months, he had been on nightly patrol duty in the Ousseltia

Valley (Tunisia). One morning, after launching an attack with his platoon, he reached his objective—a hill which had to be held for further operations. Shortly after he took the hill, the enemy counterattacked. Since he had not had time to consolidate and dig himself in, he was "caught short" in close fighting. Shells from the mortars began coming in. Several landed near him, one very close. But he was only stunned, not hit. He managed to continue the fighting and to maintain his objective for one hour. During this time, however, he became tremulous and unable to hold his rifle. Helped by another soldier, he came to the aid station with gross tremors and a sickly smile. "Don't send me back to the rear. I'll be all right!" he insisted. He was given a cigarette, which he could not light because of his tremors. He tried to joke about it. He was sent to the kitchen area for 2 days and nights. When he came back, he had lost most of his tremors, but he now had a tic in the form of eyeblinking and head twitching. He was still tense, but eager to rejoin his outfit.

For 3 months, he carried on in active combat with a high degree of efficiency. Once when his company was launching an attack, all the officers were killed or wounded in the first half hour. As the ranking noncommissioned officer in the outfit, he led the company until a relief officer assumed command. He was later wounded in the back by a shell fragment and evacuated as a surgical casualty.

His stamina and group loyalty were not unusual. In fact, in his particular company he was more typical than not. Yet, had he been evacuated because of his tic movements and obvious anxiety, I am fairly certain, in retrospect, that he would have developed clinically into some war neurosis category and that the Army would have lost an excellent fighter.

PREVENTIVE PSYCHIATRY

Military preventive psychiatry focused on one goal—combating anxiety. This meant detecting the important abstract and concrete factors that produced anxiety, ascertaining the available forces, and helping the command devise practicable measures of prevention in the shortest possible time.

Here, psychiatric common sense found practical application. As previously mentioned, many of the men did not express much hate for the enemy. It was nevertheless natural for some of our officers to believe that we had to inculcate hatred for the enemy in our men. Yet on the battlefield, where dispersion was so essential, it was hardly advisable to gather the men together for pep talks. Similarly, during a lull between battles, weary soldiers could not be expected to be interested in a lecture on the evils of fascism.

Combat soldiering had become far too personal, too real and concrete, for political platitudes to find their mark. These men were interested in the

answers to such questions as: When will we be relieved? When are other units coming up to help out? How did we do, compared with the other battalions? Did the other outfits fight as hard as we did? Were their casualties as heavy as ours?

In short, the important concern was, "Me and my gang, how are we doing? And how about the others?" Taking his cue from this emotional climate, our battalion commander gathered the men together just before a new offensive and spoke as follows: "I know as well as you do that the going has been tough. Maybe I sweat it out more than you because I have more to worry about. But you've done a fine job and I'm proud of every single man in my outfit. I assure you that everything possible will be done to give you the best available support, and I will not order you to attack unless I'm confident that you have a real chance to succeed." He went on: "The harder we fight now, the sooner we can finish this mess and get back to living the way we want."

That speech demonstrated the wisdom of using the commonsense approach to thwart anxiety. Had this commander preached about the advantages of democracy over fascism, or about the evil Hitler had wrought, his words would have fallen on deaf ears. Instead, he seized on the strong motivating forces of his men—respect for him as a leader, a desire to remain in good standing with the other men, and an urge to participate in the accomplishments of the group.

It was interesting that this very capable commander, who knew no formal psychiatry, intuitively did the right thing at the right time. Field psychiatrists learned much by observing such leaders in action, and then transmitting this knowledge to less successful leaders.

The frank and direct talk of this battalion commander suggested that we would do well to foster greater unit loyalty—a tendency that was already present—instead of attempting to instigate greater hatred for the enemy—a tendency that was not so marked. In other words, if our soldiers were motivated more by love than by hate, why not make every effort to strengthen the tendency which already existed?

Further, from a psychiatric viewpoint, it was observed that a soldier's identification with his group—whether platoon, company, battalion, or division—was a strong stabilizing influence during combat. Lack of such identification in itself provoked anxiety. Individual soldiers and officers coming up as replacements were often so lonely that at times they were actually frightened by the newness and strangeness of their associations. For many, it was their first experience under fire. Going into battle as part of a group with many friends is bad enough, but going into the same battle as a stranger without friends could be utterly devastating.

Similarly unenviable was the plight of the new platoon leader given command of a group of battlewise veterans. It was not surprising that some of these leaders acted in a foolhardy way just to convince themselves and

the men that they were not afraid. Nor was it surprising that physical casualties among them were very high.

From this evidence, it seemed logical to conclude that casualties ought to be replaced by groups instead of by individuals wherever possible—replacement of whole companies, battalions, regiments, or divisions. Of course, this was easier said than done. There were many other matters to be considered before such replacements could be effected. Of necessity, it was a decision for the psychiatrist to suggest but for the command to make.

In this connection, one of the mixed blessings of the remarkably efficient and fast medical evacuation system in the Tunisia Campaign was that, although it contributed greatly to the high recovery rate of wounded men, it at the same time produced such a rapid separation of men from their units that lightly wounded men were lost as combat soldiers. They were lost not because of their wounds but because they were transformed by the inevitable reorientation of the Army and by the attractive discovery that there were many other ways to serve the Army honorably without the high risk of combat.

Still another aspect had to be taken into account. There had been much talk that many of our soldiers did not appreciate why we were fighting. It was no doubt true that many of them had little knowledge of the socio-political complexities involved and were unable to verbalize the meaning of the four freedoms. Yet I found that the men I served had a fundamental confidence that our way of life was the right one. Although confident of victory, they were humanly concerned about the sacrifices necessary to win. Here, again, was a fertile field for building up anxiety. They wanted to know, "Who is supposed to do the sacrificing? A few of us or all of us? If a few of us, why should it be me? Should not all of us participate?"

Naturally, soldiers living for months in mud and sweat and misery were resentful when they learned that people back home were trying to make enormous profits, or taking it easy, or showing no signs of appreciation for the fighting man's sacrifices and labor. These were the thoughts that gnawed away at the men during the long hours of waiting and the monotony of combat duty. It was clear that we as medical officers had an obligation to report accurately and convincingly the needs of the combat troops so that our rear echelon and civilian support could become more productively engaged in an all-out war effort.

Effective aids in minimizing anxiety were proper classification and assignment, adequate discipline, and good doctors. The value of proper classification and assignment of soldiers could not be overestimated. When a soldier felt properly placed in his unit, he was able to tolerate more stresses and strains in order to hold on to his assignment. Two jeep drivers in our detachment refused a promotion and a less hazardous job simply because it meant giving up driving their vehicles, which they preferred over any-

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thing else. Obviously, many men were disgruntled and performed their duties poorly because they had been unwisely assigned.

It was unrealistic to expect a high degree of job satisfaction in the infantry because most of the men came from civilian occupations. In many instances, however, it was possible to raise the level of job satisfaction by shifting men within the unit and by establishing a close liaison among personnel officers, company commanders, and doctors. Actually, what it amounted to was reclassification and reassignment.

It was impressive to see men, who had previously been labeled as psychopathic or psychoneurotic, perform adequately in battle under good leaders. One such man, with about 250 days "absent without leave" against him before going overseas, served so well that he was cited at least three times for gallantry in action. Of course, not all psychopaths won citations; and by the same token, some apparently stable men failed to acquit themselves properly.

Such seeming contradictions raised serious doubts about the validity of the criteria we ordinarily used to predict army adjustment. The prediction or detection of neurotic traits did not necessarily imply poor army adjustment. So often, a soldier's success depended more on where he was placed and on who his superior was. A good leader enabled the combat soldier to use what assets he had, despite personality defects or conflicts. On reflection, the notion that some of us had at the induction screening level that we could after a brief examination determine who was or was not fit for army duty now seems naive. Obviously, we can eliminate frank psychoses and, possibly, neurological disorders at induction; however, any other predictions about fitness for the army are almost preposterous. The important issue is how resourceful can the army be in using the manpower it has available.

It was observed in some of our units that, although every effort was made to lead men judiciously and to encourage them to use their own initiative, some men regarded this tolerant leadership as a form of coaxing or seduction, and reacted by violating the regulations. Therefore, it became essential that, along with the maximum effort to inspire the men, there also be established a thorough understanding that firm military discipline would be maintained at all times. The majority of soldiers conformed to regulations even though it irritated or inconvenienced them to do so. They were far more apt to resent the fellow soldier who defied regulations and then was not punished. Seeing regulations violated without punishment tempted the men to follow suit, thus adding to the turmoil of potential anxiety.

The role of the physician in combating anxiety was unique in that he was treating casualties at the same time that he functioned in an advisory capacity to the unit commander. By so doing, our field medical officers were able to contribute to a program of psychiatric prophylaxis. That is why it was most important for field medical officers, especially the battalion sur-

geons, to have a psychiatric orientation. It was essential that the medical officer identify himself as an integral part of his combat unit. The more familiar he was with the technical and practical details of his unit, the more thorough his knowledge of the men.

To detect the many forces which provoked anxiety in soldiers, it was necessary for the psychiatrist to get into the field himself, to become intimately associated with the stresses and strains the soldier was undergoing. At the same time, the psychiatrist had to maintain a close liaison with the officers in command. It was up to the psychiatrist to convince his commanding officer that he understood, or at least tried to understand, the problems in a practical way and to communicate in the language and feelings of the line officers. It was up to him to "sell" himself to the line officers by his knowledge, his attitude, and his conduct.

There were those who argued that a doctor was stepping out of line when he concerned himself with such questions as whether or not mail was getting through to the men, whether or not the soldiers felt confidence in their officers, whether or not discipline was appropriate, and whether or not the folks back home appreciated what the fighters were doing. Nevertheless, the fact remained that psychiatric casualties were an actuality and that the factors mentioned were contributing to anxiety and to the soldier's vulnerability to mental distortions. Concern about these matters was no different from the concern of the Army doctor who thoroughly deloused hordes of filthy civilians to avoid a typhus epidemic among the oncoming troops. In short, the point was to detect and eliminate the causes of disease, instead of waiting for the disease to occur and then attempting to treat it.

SUMMARY AND IMPLICATIONS

1. The men observed in this account were predominantly motivated by love rather than by hate. Love was expressed by concern for maintaining self-respect in their own as well as their colleagues' estimation. Manifestations of hate occurred in reaction to abdication of responsibility by members of the same team in the rear echelons, rather than against the military enemy.

2. Psychiatric sophistication is a very important asset for the medical officer who lives with the troops.

3. Preventive psychiatry with special focus on concrete morale factors that promote and maintain group cohesion is by far a more important contribution to military efficacy than is even the best psychiatric treatment program.

4. If adequate motivation on an abstract level—political, ideological—is not well established before the combat time, then it is too late to develop this during combat. The concrete morale factors thus become even more important in facilitating endurance and perseverance.

5. High morale means a high level of mental health. It also means peak combat efficiency and concomitantly low psychiatric casualty rates. When psychiatric casualties do occur in this setting, they are clinically so severe that they are not treatable in the combat zone. Conversely, a high incidence of psychiatric casualties which are not clinically severe indicates either poor morale, poor leadership, or inept medical judgment in coping with the amorphous and prevalent anxiety state.

6. With the exception of clear-cut psychoses, learning how to predict at the induction level who will or will not serve well at his properly assigned duty is more complex and difficult than learning how to be resourceful in using available manpower. In general, soldier failure means leadership failure.

7. In retrospect, the psychiatric history of World War I [3] adequately documented the need for a dynamic encounter with psychiatric symptomatology within the sound of the guns. This concept was not a part of our operational program during the early days of World War II. We had to relearn it all over again. We are again challenged to see whether this hard-won knowledge can now be consolidated and made sufficiently operative so that we can go on to observe still other facets of this distressing and complex field of human behavior.

[3] The Medical Department of the United States Army in the World War. Neuropsychiatry. Washington: U.S. Government Printing Office, 1929, vol. X.

CHAPTER V

The Fifth U.S. Army Neuropsychiatric Center—"601st"

Edwin A. Weinstein, M.D.

GENERAL CONSIDERATIONS

The development of the concepts and procedures of the Fifth U.S. Army Neuropsychiatric Center, the "601st," may be characterized as a shift from principles of individual, psychobiologically based psychodynamics to those of social psychiatry, culminating in the view that the behavioral disturbances of combat are meaningful in terms of the social environment in which they occur. This orientation provides a framework in which the etiology and methods and rationale of diagnosis, treatment, and prognosis of such behavioral changes can be described.[1]

The experiences from which this account is taken may be conveniently divided into three stages: the fighting in North Africa and Italy before the establishment of a psychiatric center at army level (21 December 1943); the Italian campaign through the fall of Rome (4 June 1944); and the activities of the center to the end of the war (8 May 1945).

After the capture of Rome, the functions of the center were modified. With few exceptions, division psychiatric units operated effectively in treatment and screening so that relatively few acute cases were seen at the 601st (fig. 14). The front had become more stable, and although the enemy still offered strong resistance, he was no longer able to make the severe counterattacks that had characterized the Tunisian and southern Italian fighting.

With greater stability, patients could be retained at the 601st according to the needs of their clinical status and did not have to be evacuated on short notice because of the arrival of the wave of fresh casualties. This allowed more systematic evaluation of treatment, and patients could be followed after return to their units or evacuation to base section hospitals. Communication among psychiatrists and with combat personnel was improved, and several professional meetings (fig. 15), attended by base section, army, and division psychiatrists, were held. With the reduced load of combat casualties, more services became available on a regular basis to army and corps personnel who were not directly in combat.

[1] It should be remembered that this account is being written 20 years after the events and the formulations and interpretations have been shaped in some degree over the intervening years. As any history is a selective condensation of the words and actions of many people, it is inevitable that there will be a degree of overgeneralization.

FIGURE 14.—Fifth U.S. Army Neuropsychiatric Center, the "601st," at Cafaggiolo, Highway No. 65, north of Florence, Italy, October 1944.

CONCEPTS AND PROCEDURES

Early Assumptions

To trace the growth of the philosophy of the 601st from the beginning, one should go back to the psychiatric orientation in which the problems of combat psychiatry had been originally approached. Here, a number of assumptions about the nature of mental illness in civilian practice had been implicitly carried over. The combat reaction was seen as a neurosis akin to the traumatic neurosis of peacetime. As a neurotic illness, it was regarded in terms of a conflict between the needs and drives of the individual and his frustration by the demands of the group. Some Freudian-oriented psychiatrists considered the fear of death and mutilation to be a recrudescence of childhood fears.

Most psychiatrists regarded the breakdowns of combat as paralleling the crises of civilian life in that they occurred in pathologically predisposed persons. The stresses of combat were thought of as precipitating or secondary factors along with fatigue, poor food, and lack of sleep. These ideas of etiology were reflected in the expectation that screening procedures would eliminate neurotic and inadequate persons, and that indoctrination of the soldier with the goals and purposes of the war would motivate him and serve as a prophylactic against anxiety. It was often said that the lessons of the First World War about the value of early and forward treatment of psychiatric casualties had been forgotten. In the opinion of this

FIGURE 15.—Fifth U.S. Army Neuropsychiatric Meeting, Villafranca di Verona, 24 May 1945. Left to right: Capt. Martin Stein, Capt. Max P. Cohen, Capt. Harold S. Wright, Maj. Lewis Thorne, Capt. Rosco E. Petrone, Maj. Walter H. Baer. Lt. Col. Frederick R. Hanson, Maj. John M. Usow, Maj. Calvin S. Drayer, Maj. James A. Halsted, Maj. Albert J. Glass, Maj. Abraham L. Kauffman, and Maj. Emanuel Messinger.

author, they were not neglected,[2] but the large number of psychiatric casualties which actually occurred was not anticipated. Secondly, early treatment in the forward areas was thought of simply as barbiturate sedation at battalion aid and collecting and clearing stations.

Clinical picture.—Before their service at the 601st, most members of the staff had treated patients in base section hospitals where a rather uniform clinical picture was observed. Patients were tense, resentful, listless, and dispirited, with complaints in varying degree of insomnia, noise sensitivity, fatigue, and headache. Based on the methods used in civilian psychiatry, histories of the social background were taken and such factors as a broken home, illness of a parent, childhood fears, enuresis, and immature heterosexual development were found and regarded as significant. Further, the duration and intensity of the combat experience were difficult to evaluate in view of the psychiatrist's own lack of knowledge, but they seemed to have no consistent relationship to the severity of the behavior disturbance.

[2] This author's opinion is not supported by the facts. *See* chapter I.—A. J. G.

In accordance with the diagnostic nomenclature of civilian psychiatry, which had been taken over, this clinical picture was designated as "anxiety neurosis." This had benign implications as compared to psychosis, and patients were treated in the expectation that they would respond. However, therapeutic efforts in the form of encouragement, suggestion, and explanation did not succeed. Soldiers were generally disinclined to talk about their combat experience. Similarly, the use of intravenous barbiturates in narcoanalysis did not result in sustained improvement and subsequent return to combat duty. The men were not interested in hospital activities, such as occupational therapy; nor was it simply a matter of the "softening" effects of the hospital atmosphere, for hospitals with vigorous physical conditioning programs were no more effective than others. It seemed that the longer the patient was in the hospital, the more fixed his symptoms were, and the more resentful and frustrated he became. These reactions were shared by the psychiatrist who might become hostile toward the patient, or who might react to his own felt failure by sympathizing to the extent of deciding that the least he could do for his patient was to send him home to the States. In the general hospital setup, the psychiatrist's problems were compounded by the dissatisfaction of medical administrators over the number of beds being taken up by psychiatric patients.

Pertinent Events

Forward psychiatry.—In Tunisia, during the battles of Maknassy-El Guettar, in March 1943, an improvised setup in a forward area had returned some psychiatric casualties of combat to duty (p. 9), and in Sicily, patients were treated at an evacuation hospital under the supervision of an assigned psychiatrist (p. 13).

Patton incident.—From the standpoint of psychiatric history, Sicily, where the famous Patton slapping incident occurred (p. 21), was of especial importance. This brought dramatically to public notice the fact that psychiatric casualties did occur and that they were as much a part of war as wounds or death.

The episode was much more than the impulsive act of an emotional commander. It symbolized in concrete fashion the attitudes of many line and medical officers. In essence, men who broke down in combat were cowards and derelict in their responsibilities to their country and fellow soldiers. General Patton later said he sought to shame the man and help him regain his self-respect. On the other hand, such men were useless in combat and harmful to the morale of the other soldiers. The dilemma is illustrated in a somewhat similar incident which occurred later in the war at a battalion aid station:

A regimental commander, on a visit, encountered a tremulous soldier. On inquiring as to the cause, he was told: "I can't stand them shells, sir." The officer then charged the

man with cowardice and ordered him back to his unit. When the man did not move, the officer became infuriated, drew his pistol, and threatened to shoot if the order was not obeyed. The man then responded, "Well, cuh-colonel, sir, I-I g-guess you'll have to shoot me." At this point, the officer turned to the medical officer with him and said: "Evacuate him, he's crazy."

Although others did not act out their feelings in such dramatic fashion, it is likely that many officers, line and medical, had a need to deny their own fears and problems. In any case, such attitudes hardly formed a basis for the efficient handling of the psychological disturbances of combat and may have blocked progress in that direction.

Later Developments

By the time the 601st was established as a separate psychiatric unit, the psychiatrists had had the benefit of the accumulated experiences of several campaigns fought under different conditions. It had become evident that the incidence and severity of the "neuroses" of combat were correlated most significantly with the circumstances of combat itself; that the number of psychiatric disturbances rose as the number of killed and wounded increased; that the longer a soldier was subjected to severe enemy fire, the more likely he was to break down; and that psychiatric casualties occurred far more frequently among infantrymen than among armored or artillery personnel.[3] Yet, it was also clear that the rate of development of anxiety could not be simply equated with the amount of shellfire sustained or the number of days spent in combat. All factors had to be evaluated in their social context. The situations in which heavy battle casualties were suffered were generally those in which the group had become disorganized and its leadership disrupted. Fatigue and other physical hardships had their significance, but in successful missions, large amounts of physical energy might be expended in pursuit of the enemy, and little sleep or food taken, without psychological breakdowns.

Group identity in combat.—The development of behavioral disturbances could be interpreted in terms of the social isolation of the soldier from the combat group. The symptoms evidenced both the disruption of group ties and the attempts to form adaptive patterns, and the various clinical pictures were, largely, representations of different rates of disruption.

The most rapid dissolution occurred in the so-called pseudopsychotic reaction. It was thus named because of the degree to which the men appeared to be out of contact with their current physical environment. They were agitated, hallucinatory, and delusional, performing such stereotypes as digging foxholes with their fingers, taking shelter under their cots at any sudden sound, and "warning" others of the approach of shells. These re-

[3] This was a common observation in World War II, for it was mainly the infantry that was subjected to intensive combat and thus had the highest proportion of battle casualties. For more complete details, see chapter III and pages 994–998 of chapter XXVIII.

actions were seen after particularly severe combat with heavy casualties. They were seen commonly in the Tunisia Campaign and became progressively less frequent in the course of the Italian campaign. In Italy, they usually occurred in men new to the group—the replacements freshly called up before an offensive action. Not only had group ties been rapidly dissolved, but also, in many cases, they had not been firmly established at the outset.

At the other end of the scale was the "old sergeant syndrome," first described by Sobel among the veteran soldiers of the 34th Infantry Division (p. 50). These men had decompensated after many days of combat. They had been efficient and conscientious soldiers, filling positions of responsibility and leadership. They had identified themselves closely with the values of the combat group, and their sense of self-esteem had rested on the contribution they believed they had made to the fulfillment of the aims of the group. This strong identification with a group was also shown in the content of the expressions of failure, self-depreciation, and guilt after evacuation from their units. They told how they had not lived up to the responsibilities of their rank. They were remorseful over having had to ask their men to do what they had not been able to do themselves. They expressed worry over the safety of their men and shame at having left them. Not all men with long combat service became "old sergeants," but the syndrome illustrates the slow attrition of group ties.

Mechanisms of group identity.—The stationing of the psychiatrist in the proximity of combat provided an opportunity to recognize the forces of group identity and to understand the mores of the "combat society." As expressed by the soldier, the motivation to fight and risk one's life was loyalty to the combat group and attachment to its members. The psychiatrist learned the special language in which the combat group classified the events of the environment, and structured the roles and relationships of its members. In general, the classification minimized cultural differences. In the case of the 442d Regimental Combat Team (a Nisei regiment), the common ethnic background and its political aspects reinforced the solidarity of the group.[4]

The well-trained soldier sees the enemy in terms of the objectives of the group, as a problem to be solved and as an obstacle to be removed. The dissolution of group relatedness was regularly associated with disturbances in perception. Soldiers would describe how they had gradually lost the ability to distinguish between the sounds of incoming and outgoing shells, and how they had progressively developed the feeling that each enemy shell was aimed straight at them. The common expression "all the old men are gone" was a representation both of what all too often had actually happened and of the soldier's social isolation and loneliness.

[4] At the time, little was known about the relationships of language and perception, but in retrospect, one can see how the language of the group was an important determinant of the way the physical realities of the combat situation were perceived.

Understanding the "base hospital syndrome."—The observations just expressed provided an understanding of the development of the "base hospital syndrome." Anxiety did not diminish as the soldier was moved farther and farther away from the traumata of battle but actually increased, for he was becoming more and more separated from his group ties, and divorced from the ordering principles of his way of life. The frequent expressions of guilt had previously been interpreted by psychiatrists as the bitter fruit of his own hostility, but now it was seen as remorse for failure. It was clear why the patient was reluctant to talk about his battle experiences in response to the psychiatrist's mistaken efforts to get him to "abreact." The only role left for him was that of a sick person, so it was not surprising that in the fulfillment of this role many somatic symptoms should develop. Another aspect of the expressions of guilt was that they served as a continuing effort to remain identified with the values of the combat group. The attempt to retain such values was also shown in resentment toward base section regulations and in contempt for close-order drill, training, and other prescribed noncombat activities.

TYPES OF PSYCHIATRIC BREAKDOWN

Nonpsychiatric Problems

The effectiveness of the soldier's resistance to the stresses of combat depended in large part on the character of his group relationships, but the attainment and dissolution of the identification took on various forms. There were many soldiers who seemed to have developed little relatedness of any kind. These were the followers, bystanders, stragglers, and barracks-bag watchers who formed a minority in most units. Many commanders believed that the bulk of the fighting was done by 25 to 50 percent of the men in their command.[5] Ineffective soldiers were apt to be evacuated by their officers through medical channels, not so much because of the severity of their symptoms but because it was easier to use medical channels. Many did not manifest severe behavioral disturbances. Actually, many of these men did not come to the psychiatrist, but were "lightly injured in action," developed medical complaints, or became disciplinary problems.

"Old Sergeant Syndrome"

The "old sergeants" have been cited as an example of a stable form of group relatedness. Most of these men identified with the group in terms of

[5] According to S. L. A. Marshall (formerly Colonel, AUS, historian of the European Theater of Operations, U.S. Army), in his "Men Against Fire," published in 1947 (The Infantry Journal, Washington, and William Morrow & Company, New York), p. 54, the figures are even lower: "* * * found that on an average not more than 15 percent of the men had actually fired at the enemy positions or personnel * * *. Even allowing for the dead and wounded, and assuming that in their numbers there would be the same proportion of active firers * * * the figure did not rise above 20 to 25 percent of the total for any action."—A. J. G.

its functions and standards rather than through an emotional, personalized involvement with one or more of its members. These soldiers were concerned with the welfare of their men but they expressed this concern in terms of what had to be done, of what was right, and of what gained the respect of the others. To let the other men down would be a disgrace. They respected their officers by reason of their rank and status in the group rather than depending on them emotionally. Some men reported that they had avoided close friendships because of the high casualty rate in infantry regiments. There also was not a great deal of feeling expressed for the enemy. One man said that he hated the "Jerries" during a barrage, but otherwise thought of them just as soldiers. Of a group of highly successful combat soldiers who were interviewed, the man who expressed the most hatred of the Germans said he had developed this feeling after he had been home on leave and seen what an easy life was led by prisoners of war. There was little guilt expressed over killing enemy troops.

Acute Breakdowns

At the other extreme, there were soldiers, some of them successful in combat, who had had highly emotional relationships in the group and with the enemy. Some seemed to have been highly dependent on their officers and other men and saw their leaders as either protective or unloving. Motives for fighting might be personal, and hatred for, and fear of, the enemy was commonly expressed. A number reported that they had volunteered for combat after learning that a friend had been killed. In such cases, the death of a friend or leader, or some particularly gruesome scene of death or mutilation, might precipitate a breakdown with dramatic suddenness. In this sense, they were more vulnerable than men who related on a less personalized basis. The following case record is illustrative:

Case report

The patient, a 28-year-old infantry private with 2 months of combat, was admitted to the 601st Clearing Company during the breakout from Anzio in June 1944. He had received a medical discharge from the Navy in 1941 after 3 years of service, because "I got burned out, I couldn't stand the heat and noise of the guns." During the war, he was working on a defense job when he got the news that several close friends had been killed. He stated he volunteered to avenge them. From his description, he was a brave and daring soldier, volunteering for dangerous details. He stated that he got a lot of satisfaction out of killing Germans: "When each one dropped, I could see my buddy lying there." One day he took a German prisoner and shot him "sort of automatically," even though the prisoner pleaded for his life in English. After that, he kept thinking and dreaming of the Germans he had killed, developed blackout spells, and was evacuated.

This type of patient expressed much overt fear of death and mutilation, seeming to ruminate obsessively over scenes of bloody destruction. There was much guilt expressed over the deaths of friend and foe. There were phobias, such as "when I sleep with my hands crossed, I get the idea it's a

dead man"; "if I crack a branch of a tree, it's like someone bleeding"; "I feel like the dark is going to kill me." Dreams and nightmares of killing and catastrophe were common.

A particularly dramatic picture appeared in cases of conversion hysteria. While these were relatively infrequent in relation to the total number of patients, the 376 cases of a total of 8,170 soldiers seen between 21 December 1943 and 17 May 1945 make a sizable clinical sample. These included hysterical paralyses of limbs; bizarre postures, gaits, and involuntary movements; functional disorders of visual, auditory, and somatic sensation; and hysterical amnesias. The major hysterical symptoms were usually of acute onset and precipitated by a traumatic event. The following is an example:

Case report

The patient, a 23-year-old infantry staff sergeant, was admitted to the 601st on a litter in late June in the fighting about Grossetto. His right arm was paralyzed from the elbow down, with a corresponding complete anesthesia. He stuttered when he spoke. He said he could see objects only on the right side of him, could remember only the first three digits of his serial number, and could recall nothing since being blown up by a shell. He expressed marked fear: "Don't let them shoot me. I'm afraid of everything."

He was placed in isolation and, when interviewed 8 hours later, was markedly improved. He could talk clearly and walk without assistance, and could move his arm. He told the following story, recorded almost verbatim:

> First day of battle I shot a dago eight times because he shot at me. I guess I must have just lost my head [here, in answer to a direct question, patient denied that he got excited easily]. We dug in and went to bed. I was with the Armd. Div. [Armored Division] riding tanks—three of my men got killed by shells then just this side of Rome. We took Grossetto—took a hill, man hit me with a rifle butt [scar in left supraorbit] that scared me—I killed him with a bayonet—that bothered me, my father taught me never to kill—he's an invalid, he's a Christian man too—he's not in bed but my mother has to stay with him all the time. Walked some more, kept going north into the mountains. Got pinned down, shelled for two hours, killed two of my men and a lieutenant. Got to a little town; Battalion Commander lost his head; ordered four men in; he got nicked then ordered us to withdraw. Then went on tanks that shelled us [weeps], killed my lieutenant. We kept fighting, I was on a cliff by the side of the road. My platoon leader was hit, I was in charge. I ordered my men out. I stopped to take one more shot. I heard the Germans holler FIRE in English and that's all I remember until they picked me up in a jeep. My gas mask and shoulder straps had been shot off. Then I went to sleep and don't remember anything until this morning. The gun was blown out of my hand, all that was left was the trigger part. I guess the flash must have blinded me.

As in this patient, the symptom was often associated with overt emotion and agitation. There were expressions of fear and hostility, and many threats against the enemy and vows of revenge were uttered. It was incongruous when a soldier, who could barely walk, insisted on going back

to attack the enemy. In some cases, hostility was expressed not only toward the enemy but also toward the man's own officers. "La belle indifférence" was seen much less frequently after the soldier had been evacuated to a rear area. In cases where it was present, attempts of the psychiatrist to remove the symptom usually caused an outburst of panic or hostility.

Common Syndromes

However, the great majority of cases treated at the 601st were not "old sergeants," or highly agitated persons, or men with dramatic hysterical manifestations. Most soldiers seen after the fall of Rome showed relatively little overt behavioral disturbance, and the evaluation by the psychiatrist was made largely on the soldier's verbal statements and, in some cases, on messages received from the division psychiatrists and line officers. The following note from a regimental commander gave this useful information: "This man passes out when he hears shells, he can't march, he can't hike, he can't dig foxholes, he has varicose veins and exhaustion. Get him the hell out of here."

Prognosis

Soldiers with attested records of inefficiency obviously could not be restored to successful combat duty. Nor could veterans of long combat service, who gave histories of steadily mounting anxiety over periods of months, be returned to combat. The obsessive visualization of past traumatic scenes and descriptions of severe phobias were also unfavorable symptoms. Another unlikely candidate for further combat duty was the soldier who had become anxious on returning to his unit after a long stay in a hospital for wounds or illness. It was the consensus among psychiatrists that poor results were obtained when mentally retarded soldiers were returned to combat units. Some men with low intelligence and minimal literacy had carried on fairly well until they actually saw someone killed. From then on they became so panicky under fire as to be useless for duty. The persistence of major conversion hysterical symptoms also yielded a low likelihood of return to combat duty. If such symptoms had not been removed by the division psychiatrist, they generally were not cured at army level. This applied especially to functional paralyses and bizarre movements and postures. Patients with complaints of auditory loss and some visual symptoms were more apt to respond.

TREATMENT

Barbiturates (Narcoanalysis)

The treatment of conversion hysteria in the military setting yielded a great deal of knowledge of the effects of barbiturates and the mechanism

of narcoanalysis. When intravenous Pentothal Sodium (thiopental sodium) was given to a soldier with conversion symptoms, he usually responded with expressions of verbal and physical violence, as he had when one had previously attempted to remove symptoms by suggestion or command.

Under the effects of barbiturates, the verbal violence took the form of a dramatic, emotional recountal of the traumatic events of combat, with descriptions of acts of killing, mutilation, and death. The physical violence was represented in gestures of attack and cowering and, on occasion, the soldier would lunge at the psychiatrist, "mistaking" him for an enemy soldier or a hated officer of his own. The accepted interpretation of such behavior had been that the soldier was recovering a forgotten memory and was liberating the affect which had been contained in the hysterical symptom.

In the 601st experience, however, it became obvious that, while the soldier was referring to past events, he was using them as being symbolic of his current feelings. Further investigation with other sources showed that various of the incidents related under the effects of barbiturates were fictional or were highly distorted and melodramatic versions of what had actually occurred.[6]

It was evident that the hysterical symptom itself, the associated verbal and emotional behavior, and the narration of past episodes were equivalent in the way they represented the patient's relationship to his present environment. The recovery from the amnesia did not cure the patient. Under the influence of barbiturates, the symptoms might be replaced by expressions of violence, but they often recurred. At the 601st, the use of barbiturates in this fashion for therapeutic purposes was abandoned. If symptoms persisted, the patient was placed in an isolation tent and told that, when his condition cleared up, he would be assigned to less hazardous duty. It was believed in general, that once the decision was made it was pointless to conceal from a soldier that he would not be returned to combat duty.

Barbiturates (Sedation)

As has been mentioned, the early emphasis on treatment in forward areas was on heavy barbiturate sedation. Directives [7] suggested doses of 0.2 grams of Sodium Amytal (amobarbital sodium) every 3 hours. This soon proved impractical and ineffective, and in some cases, barbiturates aggravated rather than ameliorated symptoms. At a battalion aid station, intoxicated soldiers staggering about were a hindrance in the treatment of sick and wounded men. When stations were obliged to move, transportation was a problem. In the pseudopsychotic states, barbiturates often made patients

[6] That such recollections may not be trustworthy was commented upon in an account of the use of Sodium Amytal in evacuees from Dunkirk. *See* Slater, P. (London), Sargant, W., and Glen, M.: Influence of Sodium Amytal on Intelligence-Test Scores. Lancet 1: 676–677, 6 June 1942.

[7] Circular Letter No. 17, Office of the Surgeon, NATOUSA, 12 June 1943.

worse, and in any case, the large amount needed for adequate sedation brought up the problem of respiratory difficulties. It was not surprising that battalion surgeons sought to evacuate such patients as soon as possible. It was soon found that the maximum benefit from barbiturates lay in obtaining a good night's sleep, and most of the men were so tired that no sedative was required.

PREDISPOSITION TO COMBAT PSYCHIATRIC BREAKDOWN

What of psychodynamic factors in the sense of the predisposing personality traits and traumatic events in early life that had seemed so significant in histories taken from patients after evacuation to base section hospitals? It was found that, in individual cases, there was a correlation among such factors and the pattern of relatedness in the combat group and the type of breakdown that resulted. On the other hand, efforts to predict the quality of performance in combat on the basis of premorbid personality and social factors were unsuccessful. Sobel noted, for example, that one-third of the "old sergeants" had histories of family neuropathy or broken homes. Men who had done well in combat not uncommonly gave a history of nail biting, enuresis, abnormal fears, sleep disturbances, and serious illnesses in childhood. Using such criteria in a comparative study of soldiers who had broken down and those who performed adequately, Glass [8] concluded that a history of mild to moderate neurotic traits was no bar to satisfactory combat duty. There was a statistically significant difference only with soldiers who showed marked and multiple neurotic traits and, of these, 40 percent served as effectively as the average soldier.

Capt. (later Maj.) Stephen W. Ranson, MC, during the fighting at Cassino early in the Italian campaign, tabulated the results of interviews with patients at the 601st with those of wounded soldiers at a neighboring general hospital and found the incidence of "neurotic traits" not significantly higher in the psychiatric patients. These findings do not mean that no relationship existed, but that these factors popularly regarded as causing neuroses in civilian life could not be correlated significantly with success or failure in combat. The problem is a complex one, as combat effectiveness and mental health cannot be equated.

In some individual patients, the accounts of past experiences frequently seemed to fit in with the type of social relatedness in the military group and the character of the breakdown. Thus, many of the "old sergeants" appeared to have been conscientious, compulsive, and responsible persons in civilian life. Those soldiers who had made relationships on a highly emotional basis often came from families where the overt expressions of fear, helplessness, worry, and violence had been important channels of

[8] Glass, A. J.: Attempt to Predict Probable Combat Effectiveness by Brief Psychiatric Examination. Am. J. Psychiat. 106: 81–90, August 1949.

communication. Physical prowess and violence were particularly evident in the background of soldiers who developed motor conversion symptoms. A number of these had been automobile and motorcycle racers, fighters, and daredevil competitors of various sorts. Traumatic events and the anticipation of them were very much part of a way of life. Thus, family relationships were characterized by much overt violence and discord among family members. Accidents and catastrophic illnesses with reports of violent onsets and dramatic cures were commonly parts of the family history. Hysterical manifestations were rare in officers and in men with more than elementary school education, and seemed particularly a phenomenon of social groups with limited conceptual and verbal resources. It became evident, also, that a soldier's account of his past history was, in some degree, shaped by his current situation.

PRINCIPLES

The principles of combat psychiatry evolved at the 601st can be stated briefly as—

1. Adequate rest and relief of fatigue.
2. Respite from immediate danger.
3. Preservation of identity as a soldier.
4. Preparation of the soldier for a new role, if evacuated.

The first point requires no amplification and is related to the second because rest could be obtained only in a place of relative safety. Although a soldier might be in some danger at division or army level, the knowledge that he was much safer than others he knew was reassuring. The preservation of the soldier's identity was aided by the absence of a hospital atmosphere, the assumption that the soldier had come for rest and recuperation, and the assurance that he would be assigned in accordance with his capabilities. With soldiers who were not returned to combat, it was believed necessary to offer assurance that they would continue to be useful as soldiers. A number of veteran soldiers expressed the hope that they might get training assignments. Another important principle concerned the psychiatrist himself and is a point not confined to military psychiatry. This was the matter of the evaluation of patients in terms of the physician's needs and problems. One was apt to think that some men did not "deserve" evacuation, and here it might be difficult to adhere to the criterion of combat efficiency. Along with the sense of participation in a meaningful effort, there seemed to be much less identification with the patients' unhappiness than there had been in the base section.

RESULTS

Early in 1945, an evaluation of the effectiveness of patients returned to combat units from the 601st was made. It used the criteria that had been

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established by Glass [9] in his study of the accomplishment of men returned to duty by the 85th Division neuropsychiatric unit.

From 1 September to 31 December 1944, a total of 371 soldiers had been returned to combat duty with the 34th, 85th, 88th, and 91st Infantry Divisions.[10] These were 28 percent of all patients admitted to the 601st over that period. The survey showed that 170 of the returnees, or 45.8 percent, had performed effectively for at least 3 months on a level equaling their previous performance. Of the remaining 54.2 percent, 16 percent had been on duty less than 3 months or had performed poorly, 15.5 percent had been transferred or assigned to less hazardous duty, 18 percent had committed disciplinary violations, 37.5 percent had been evacuated through nonpsychiatric medical channels, 10 percent had been evacuated psychiatrically, 2.5 percent sustained self-inflicted wounds, and 0.5 percent had failed for other reasons. These figures showed that over the stated period 12 percent of men evacuated to the 601st could be salvaged for further effective combat service.

The group studied included only riflemen, artillerymen, combat engineers, and medical personnel entitled to the "combat medic's" badge.

It was noted that officer psychiatric patients, returned to combat duty, did poorly. These men were almost all platoon and company commanders, and only relatively few performed effectively.

OTHER FUNCTIONS

The 601st also served II Corps service and support units who were not directly in combat. There were the usual problems of garrison troops and examinations for medicolegal purposes. Capt. Rosco E. Petrone, MC, developed the Petrone sign, a correlation of sideburn length and degree of psychopathy. When patients at a nearby venereal disease center developed unexplained problems, Capt. Martin Stein, MC, of the 601st was available for consultation.

The unit was also of use to division psychiatrists in the evaluation of neurological problems. One man, sent back because of his complaint that he could not hold a rifle, was found to have myotonia congenita.

Late in the war, the unit participated in the screening of infantry officer candidates. As many of these men had already been tested in battle, one problem was the evaluation of the degree of anxiety and the elimination of "old sergeants."

The operation of the unit involved little formal structure or hierarchy. The administrative chores were handled largely by the assigned nonpsychiatric medical personnel. The interviewing of soldiers was shared equally and carried on in adjoining booths, so that consultation was readily avail-

[9] See footnote 8, p. 138.

[10] Author's personal knowledge.—A. J. G.

able. Instruction of new psychiatrists was carried out in informal discussions. As the group had no formal table of organization, there was no "bucking" for promotion, a factor which contributed to the esprit de corps. Finally, there were the visits from division psychiatrists for discussions of policy and the "management" of the "old psychiatrist syndrome." [11]

[11] The 601st played an important role in the development of division psychiatry. Not only did some of its alumni become division psychiatrists but the 601st staff also provided professional and emotional support for their colleagues in the forward areas. Division psychiatrists, new in the theater and to problems of combat psychiatry, received informal orientation and briefing at the 601st. It was common for division psychiatrists to return periodically to the parent center for reassurance, encouragement, and support. They could also be sure of receiving a measure of physical recuperation in the form of a hot bath, food, "drink," and of having the opportunity to discuss psychiatric problems and events in their divisions and proposed solutions with an interested and perceptive group. At the 601st, the division psychiatrists met their counterparts in other divisions, traded experiences, concepts, and methodology, and participated in the several formal conferences that were held. It is difficult to describe the unique attachment of the division psychiatrist for the 601st. One must picture the single psychiatrist, isolated from professional contacts, who needed occasional opportunities to discuss technical problems with colleagues in order to maintain objectivity in view of proximity to the combat scene and his own emotional involvement in daily decisions of whether to evacuate or return to duty with its implications of life or death for the individual concerned. At the same time, the division psychiatrist could obtain followup information on patients whom he had evacuated.—A. J. G.

CHAPTER VI

Base Section Psychiatry

Benjamin Boshes, M.D., Lawrence P. Roberts, M.D., and
Louis L. Tureen, M.D.

GENERAL CONSIDERATIONS

Any military campaign is a continuum in which there is a certain amount of overlap between administrative phases. As combat gains are secured reasonably well against recapture by the enemy, however, military functions tend rapidly to be performed characteristically in fixed installations more similar to peacetime establishments than to the mobile units designed to function somewhat austerely in combat areas. These fixed installations overseas in the U.S. Army during World War II were generally organized as quickly as possible in base sections located typically about major ports through which sea communication was maintained with the Zone of Interior. In the Mediterranean theater, the chief base sections were—

1. MBS (Mediterranean Base Section), activated on 8 December 1942, with headquarters at Oran, Algeria. (A subdivision, the Central District, was established on 7 June 1943, with headquarters at Algiers.)

2. ABS (Atlantic Base Section), activated on 30 December 1942, with headquarters at Casablanca, French Morocco.

3. EBS (Eastern Base Section), activated on 20 February 1943, with headquarters at Constantine, Algeria. (After the end of the Tunisia Campaign, EBS headquarters moved to Tunisia, first to Mateur and then in August 1943, to Bizerte.)

4. PBS (Peninsular Base Section), activated on 1 November 1943, with headquarters at Naples, Italy. (PBS headquarters moved north to Leghorn, Italy, in November 1944.)

Minor base sections were also established in Sicily (Island Base Section), in Corsica (Northern Base Section), and in southeastern Italy (Adriatic Base Command). In southern France, Coastal Base Section became the Continental Base Section which was then split into two sections, Continental Advance Section at Dijon and Delta Base Section at Marseille, before the final transfer of this area from the Mediterranean to the European theater on 20 November 1944 (see map 1).

Medical Installations

The chief medical installations in the base sections were the large general hospitals (1,000–2,000 beds) and the station hospitals (250–500 beds). Generally speaking, the station hospitals cared for the medical needs of noncombat troops in their immediate areas, whereas the general hospitals received the seriously wounded and ill from the forward areas, who required more definite and prolonged care than could be provided by field installations.

Tactical and logistic considerations sometimes caused variations in this pattern. An evacuation hospital might serve for a time as a general hospital for a base section (as did the 8th Evacuation Hospital at Casablanca from 22 November 1942 until the 6th General Hospital opened there on 27 February 1943) (figs. 16 and 17). On the other hand, general hospitals were occasionally close enough to the combat area to supplement army and corps hospital services rather directly (as in Italy, in the case of the 36th General Hospital in Caserta, during the winter of 1943–44, and of the 24th General Hospital in Florence, during the winter of 1944–45). Furthermore, it was sometimes possible to group general and station hospitals in such a manner as to form a large medical center (best illustrated by such a center at the fairgrounds in Naples) where some specialization of function in each hospital became possible.

FIGURE 16.—8th Evacuation Hospital, Casablanca, French Morocco. Porch was entrance to psychiatrist's office which he shared with the chaplain and the pathologist.

FIGURE 17.—6th General Hospital, Casablanca, French Morocco. (Top) Exterior view of neuropsychiatric section. (Bottom) Courtyard, neuropsychiatric section.

Psychiatric Facilities

According to available figures, 17 different general hospitals and 42 different station hospitals functioned at various times and in various places in the Mediterranean theater between November 1942 and June 1945.[1] Most of the general hospitals brought competent psychiatrists with them from the Zone of Interior. Only a few of the station hospitals had such specialists assigned to them.

An effort to describe adequately the psychiatric experiences in each of these base section hospitals would serve no useful purpose, since there would be much pointless repetition. Instead, the development of psychiatric services in one general hospital and in the two specialized neuropsychiatric station hospitals will be presented, chiefly in terms of their clinical evolution.

Section I. 12th General Hospital

Benjamin Boshes, M.D.

ORAN PERIOD, DECEMBER 1942–DECEMBER 1943

The 12th General Hospital had been activated on 15 February 1942. with a staff drawn largely from Northwestern University Medical School, Chicago, Ill. The staff's initial military training in the United States had been at Camp Custer, Mich., and at Fort Benjamin Harrison (Billings General Hospital), Ind. Here, the unit had familiarized itself with the Army technique of psychiatric problem management.

Maj. (later Lt. Col.) Benjamin Boshes, MC, chief of the psychiatric service, his assistant, Capt. (later Maj.) Stephen W. Ranson, MC, and their five well-trained nurses had no trouble in dealing competently with the psychiatric and neurological problems they encountered in this ZI military setting. When, however, the 12th General Hospital arrived in North Africa on 26 December 1942, Major Boshes and his well-integrated neuropsychiatric staff were in reality hardly prepared to understand immediately what was being set before them.

The 12th General Hospital was first located at Aïn el Turk, a bathing resort east of Oran. Three villas were assigned to the neuropsychiatric section. Two villas were used as open ward units for neuroses. Airplane runway matting "obtained" from a nearby fighter base equipped the third villa as a maximum security ward. In addition, the basement of a fourth villa was converted into a locked ward for patients with behavioral disorders; such patients were even then recognized by the Army as possibly having severe psychopathology.

[1] Wiltse, Charles M.: The Medical Department: Medical Service in the Mediterranean and Minor Theaters. United States Army in World War II. The Technical Services. Washington: U.S. Government Printing Office, 1965.

Clinical Experiences

The picture that was to evolve was essentially relevant only to the Mediterranean theater and only to that specific period (1942–43) of World War II. It was not to be repeated during the subsequent 2 years. At this time, the American soldiers were unprepared for the terrors of active combat. Thus, it is understandable that early psychiatric reactions were severe and included not only tremors, battle dreams, sleeplessness, and various major conversion reactions such as hysterical seizures, paralysis of extremities, camptocormia, and astasia-abasia, but also severe regressions with Parkinson- and catatonic-like states. Occasional marked depressions and severe, transient hallucinatory episodes were also observed.

These psychiatric casualties were evacuated from the Tunisian combat area hundreds of miles to rear hospitals, many to end up near the port of Oran. In the course of evacuation from the front, they were treated, while in transit, sometimes intensively, sometimes superficially. Many were given drugs (barbiturates), the effect of which when combined with acute reactions to combat, produced manifestations that, on occasion, amounted almost to toxic psychosis. The normal repressive mechanisms for the handling of anxiety were literally paralyzed by these drugs so that even in the relatively quiet base section, hundreds of miles from the front, these men would beg: "Please do not give me blue heavens [Sodium Amytal (amobarbital sodium)]. They give me battle dreams."

Some of the patients were light sensitive. The flicker of lights at night was sufficient to set off a reaction. It reminded them of the flash of an exploding shell. The snap of a finger or the dropping of a hospital chart would cause a soldier literally to dive out of bed and tear at the terrazzo floor with bleeding bare fingers as he tried to dig a foxhole. Some of these reactions were so violent that special precautions were occasionally required, such as placing mattresses along the walls and on the floor, to protect those patients who would throw themselves about in response to a light or sound stimulus.

Nor were these severe battle reactions limited to Americans. Soldiers from the British First Army, who had been through Dunkirk, showed a similar picture. Occasionally, a sailor from another nation, a Greek, an East Indian, or a Portugese, whose ship had been torpedoed in the Mediterranean would be admitted to the 12th General Hospital because of a similar psychiatric reaction. Since this hospital had the only closed ward in the Oran area, the more violent patient found his way there.

At times, locally created acute psychiatric casualties were seen. Combined submarine and airplane practice maneuvers were carried on along the shore nearby the hospital. The planes swooping down over the hospital area would reactivate the anxiety of sick and wounded soldiers who had experienced German dive-bombing. Acute emotional responses would be released

in patients on the medical, the surgical, and the orthopedic wards. The picture of the acute "battle reactions" would follow, and the patients would have to be transferred to the neuropsychiatric section. Practice gunfire had the same effect, and an occasional enemy bombing in the area at night also served as a source of acute casualties. As a result of this enemy bombing, at times, personnel from nearby logistic and support units would be admitted because of acute emotional reactions.

Therefore, at the 12th General Hospital, the patient sample represented a complete cross section, from the evacuees of the Tunisia Campaign—men who had been through the Kasserine Pass debacle—to the torpedoed sailor or the acute reactor in the local bombing.

The patients who arrived at the 12th General Hospital in Aïn el Turk, after numerous evacuations from one hospital to another, showed such symptoms as anxiety, sleeplessness, tremulousness, and sweating. The patterns were generally quite fixed. Apparently, the milder reactor had already been culled out and sent back either to combat or to limited duty.[2]

At that period, surprisingly, few patients exhibited pure psychophysiologic symptoms. These psychosomatic reactors were not common then; there were more men with anxiety and accompanying signs, more with conversion reactions, and, as already noted, a large number with a psychotic picture, frequently drug released.

Initial Treatment Efforts

Early in the treatment regimen that was provided these patients, an attempt was made to give them comfort in a full hospital setting with nurses and sedation, but the medication only made them worse. A number of patients were tried on "Dauerschlaf" (prolonged sleep) therapy, some for 14 days and more, with no relief of symptoms. Others were tried with cold-packs, again without relief. Every drug, every noise, served only to aggravate the symptoms.

The problem of what to do with the severely disturbed patient became grave because the closed ward filled up rapidly. Hospital ships were a rarity, and the disposition of these patients to the United Kingdom or to the Zone of Interior depended on the acquiescence of the shipmaster, whether he had the facilities or the willingness to take such men back on a freighter which carried wounded and physically sick patients. Many masters refused to accept the disturbed person, for they had no facilities or personnel to handle him.

After 3 months of experimenting with various types of therapy to bring about a remission of symptoms in these disturbed patients so that they could be transported safely, electroshock therapy was tried. The results were remarkable.

[2] These assumptions are probably incorrect since, at this stage, there was little or no organized psychiatric treatment prgram in either forward or combat support areas.—A. J. G.

Electroshock

A review of the electroshock experience, a summary of which follows, was given at a joint meeting of British, French, and American medical officers in September 1943 in Oran.

In a group of 1,600 cases, 5.3 percent had proved to be resistant to all previous therapy. These patients were violent, agitated, sleepless, mute, noneating, or severely regressed. In 8 months, from February to September 1943, of administering electroshock therapy, not a single patient required evacuation in restraints, regardless of the severity of the original condition. Indeed, some patients had been considered to be suicidal and homicidal. Rarely was it necessary to give more than two electroshock treatments, usually within 48 hours. The wild combativeness, the mutism, the hysterical seizures, the paraplegias, the astasia-abasias, the deafness, the hyperkinesias, the agitation, the sleeplessness seemed to melt under the effect of electroshock treatment.

The writer (Boshes) pointed out then, as he reemphasizes now, that electroshock therapy was not a panacea, for it treated the symptoms only, not the disease. It did not remove the cause of, or the need for, the neurosis. However, it did prepare the soldier for military, social, and economic rehabilitation. It made the patient communicative so that it became possible to perceive the underlying personality structure and to determine whether the individual could be salvaged in the theater for some aspect of the war effort or whether it would be more appropriate to evacuate him to the Zone of Interior for further care and disposition.

In the psychoneuroses.—In another study of 900 cases admitted to the 12th General Hospital as psychoneuroses, 712 were battle incurred, of whom 4.6 percent required closed-ward care. This last group showed a sufficient disturbance to be considered quantitatively psychotic, but the disorder was in actuality a pseudopsychosis in which the ego had not lost its reality-testing function. These patients were in contact, and even in their auditory hallucinations, the content was not bizarre like that of the schizophrenic delusion, but was reality oriented. The voices to whom the soldier answered were usually those of a mother, a sister, an aunt, or a grandmother, who reassured the soldier: "You have been a good soldier. You have been brave. You have not failed. You may come home." The visual experiences, even so-called hallucinatory episodes, were of battle experiences; that is, the flash of a shell, the explosion of a mortar, and the roar of German dive-bombing. Such stimuli evoked the psychotic-like reaction. The precipitating factors may have been the death of a buddy or of a commanding officer, fatigue, hunger, cold, fear, or the aftermath of a nearby shell explosion.

As two or three electroshock treatments dissected away the psychotic overlay, the underlying personality was revealed. In these patients, the background was often that of immaturity and passivity. Some patients had

maintained themselves in combat fairly well, for varying periods of time, while others exhibited early breakdown.

At first, treatment was aimed at making the patient sufficiently tractable so that he could be returned to the Zone of Interior. However, it was rapidly realized that these men could serve a useful function in the theater, and many were so reclassified for limited duty. Selected soldiers were sent back to combat duty.

Depressive reactions were also seen, usually in noncombat soldiers from base section supply and logistic installations. In some instances, these depressive reactions proved unresponsive to psychotherapy and electroshock only was utilized. A few treatments were all that were necessary to bring about a remission of symptoms. Such patients were returned to regular duty. Later, when the need for combat replacements arose, a reclassification of soldiers assigned to the base section was made. Consequently, many of the previous neuropsychiatric patients were battle trained and placed in combat units.

Limitations.—Obviously, electroshock method of treatment has its dangers and limitations. It is a procedure that should be employed selectively when conservative or less radical measures fail. As has been indicated, it was necessary to administer electroshock treatment in only 4.6 percent of the patients with battle-incurred psychoneuroses. Fortunately, there were no complications whatsoever. From the clinical standpoint, the familiar compression fractures of the dorsal spine and avulsion fractures of the extremities were not encountered.

Technique.—An Offner-type 731 electric shock apparatus was used which functioned well on the available current. In more than 650 treatments (psychoses and psychoneuroses), there was no apparatus difficulty. Reactions were prompt, and a grand mal seizure was always the goal. Treatment was given on a Bradford hyperextension frame or with the patient hyperextended on a firm bed, protected by pillows or blankets. The attendants were carefully trained in holding the patient. A subluxation of the jaw sometimes occurred but always reduced itself spontaneously as the patient relaxed. The interscapular pain so often complained of by patients in private or State hospitals never appeared at the 12th General Hospital. This fortunate absence of complications can be attributed to several factors: (1) Young age groups, (2) healthy patients, and (3) careful mechanical restraint.

At first, it was feared that avulsion fractures might occur in the heavily muscled soldiers, such as port battalion stevedores, but none did. Similarly, the oft-noted memory defects did not appear, probably because of the young age group but perhaps more because so few treatments per individual were given. The treatment was never administered to patients with severe surgical lesions; first, because the presence of such lesions precluded the use of a procedure that produces such a strong muscular contraction and, second,

because such wounded patients do not have a "need" for neurosis. So often, the wound is the "solution" resolving the requirement for continuing in combat. When surgical patients were nearly well from a wound, they occasionally developed conversion or anxiety manifestations.

To avoid complications, considerable care and judgment were exercised. A careful history and examination for concomitant injury or disease were essential, and where indicated, a spinal X-ray, and EKG (electrocardiogram), or other special procedures were undertaken before treatment was instituted. When no history was available, for example in an amnesic soldier, the examination was, perforce, especially careful. The attendants were thoroughly trained in handling the patient during the aftertreatment. The actual treatments were given only by the medical officer (fig. 18).

Results.—The following summarizes the results obtained in the early use of electroshock treatment:

1. Thirty-three patients with severe battle-precipitated psychoneuroses, refractory to other therapy, were treated by the electroshock method. They represented 4.6 percent of the 712 battle-incurred psychoneuroses seen in the 12th General Hospital.

2. All showed immediate improvement—14 had a complete remission, 15 were markedly improved, and four were improved.

FIGURE 18.—Electroshock treatment team, with Maj. Benjamin Boshes, MC, 12th General Hospital.

3. Of the 33 patients, 23 (70 percent) required three or fewer treatments; this meant clearing up of the syndrome in 48 hours or less.

4. Interval lapses up to 4 months after onset of symptoms did not seem to impair the efficacy of the treatment.

5. No complications whatsoever were encountered but the method required careful technique and supervision.

6. Electroshock treatment was useful in reversing the symptom complex of the following battle-precipitated psychoneurotic syndromes: Severe anxiety, sleeplessness, agitation, mutism, acute "schizoid" withdrawals, regressions, amnesias, and other conversion symptoms of the hypokinetic or hyperkinetic variety.

7. This method did not alter the personality structure, but it was a step forward in the process of rehabilitation of the individual to an effective independent state.

Changing Clinical Picture (July–December 1943)

By the summer of 1943, the clinical picture of admissions was beginning to change. The 12th General Hospital at Aïn el Turk was operating smoothly, and a realistic methodology for screening and handling the psychiatric casualty was in development. The campaign in Tunisia had ended victoriously—Tunis and Bizerte had fallen, and the entire North African littoral was in the hands of the Allies. The various combat units returned to the Oran area to "clean" their personnel, combing out the ineffectives, the inadequates, the psychotics, and the troublemakers; and, in addition, through the chain of evacuation came the remainder of the psychiatric casualties of the Tunisia Campaign.

Meanwhile, the psychiatric breakdowns from the noncombat units in the base section continued to feed into the 12th General Hospital through the various echelons. Casualties from the new troops that were being brought into the theater for further military operations swelled the hospital census. In July had come the invasion of Sicily, and in September, the invasion of the mainland of Italy, and in later months, the breakthrough beyond Naples and the steady uphill fighting of the Italian campaign. The patients, therefore, represented the troops that were involved in combat operations, past, present, and perhaps future.

Just before the Sicily Campaign, some difficulty had been experienced with the combat personnel of the 1st Infantry Division who, after the Tunisia Campaign, almost as a unit firmly believed that they were going home for Christmas. When they learned that ahead of them was not merely training but further beachheads and invasions, behavioral difficulties arose, and men who previously had shown no emotional disturbances now revealed them.

Statistical Data

Of 1,600 patients on whom data were available (tables 2, 3, and 4), 976 (61 percent) were in the psychoneurosis category; the remainder, 624 (39 percent), were in other categories.

The psychoses comprised 171 patients, 10.7 percent of all cases. Of these, schizophrenic reactions were the most common, totaling 121 cases: 70.8 percent of the psychoses and 7.6 percent of the total patients.

TABLE 2.—*Distribution of 1,600 neuropsychiatric casualties, combat and noncombat, 12th General Hospital, North African Theater of Operations, U.S. Army, 1 July–1 December 1943, by diagnosis*

Diagnosis	Admissions		Combat		Noncombat	
	Total number	Percent	Number	Percent	Number	Percent
Psychoneurosis	976	61.0	416	42.6	560	57.4
Psychosis	171	10.7	5	2.9	166	97.1
Concussion	126	7.9	79	62.7	47	37.3
Epilepsy	52	3.2	1	1.9	51	98.1
Constitutional psychopathic states	81	5.1	0		81	100.0
Mental defectives	75	4.7	0		75	100.0
Other organic syndromes	119	7.4	58	48.7	61	51.3
Total	624	39.0	143		481	
Grand total	1,600	100.0	559		1,041	

TABLE 3.—*Distribution and disposition of 416 of 1,600 neuropsychiatric patients, psychoneurosis, combat associated, 12th General Hospital, North African Theater of Operations, U.S. Army, 1 July–1 December 1943, by category*

Category	Admissions		Disposition			
	Total number	Percent	Returned to duty	Assigned to limited service	Evacuated to Zone of Interior	Transferred
Anxiety	308	74.1	9	41	231	27
Anxiety hysteria	55	13.2	2	9	25	19
Hysteria	20	4.8	1	2	14	3
Reactive depression	9	2.2	0	1	8	0
Posttraumatic neurosis	11	2.6	2	0	8	1
"Other" (psychosomatic)	13	3.1	1	2	10	0
Total	416	100.0	15	55	296	50

TABLE 4.—*Distribution and disposition of 560 of 1,600 neuropsychiatric patients, psychoneurosis, noncombat associated, 12th General Hospital, North African Theater of Operations, U.S. Army, 1 July–1 December 1943, by category*

Category	Admissions		Disposition			
	Total number	Percent	Returned to duty	Assigned to limited service	Evacuated to Zone of Interior	Transferred
Anxiety	267	47.7	8	42	200	17
Anxiety hysteria	63	11.2	4	16	37	6
Hysteria	43	7.7	4	6	33	0
Reactive depression	35	6.2	2	1	28	4
Posttraumatic neurosis	15	2.7	4	2	6	3
"Other" (psychosomatic)	137	24.5	12	21	100	4
Total	560	100.0	34	88	404	34

In the organic group with 453 cases, concussion (126 patients) was the most common (7.9 percent of the total patients); epilepsy, 52 patients (3.2 percent of the total patients); 81 patients were designated as constitutional psychopathic states (now termed "character or psychopathic disorders"), or 5.1 percent of the whole;[3] and mental defectives, 75, or 4.7 percent of the total psychiatric casualties. Other organic syndromes, 119 cases, made up 7.4 percent.

Psychoneurosis

In the psychoneurosis category, of the 976 cases, 416 (42.6 percent) were combat associated (tables 2 and 3) and 560 (57.4 percent) noncombat associated (tables 2 and 4). In both instances, the greatest category was the anxiety state, 308 (74.1 percent) of the 416 combat-associated cases and 267 (47.7 percent) of the 560 noncombat derived. The reason is obvious: the incidence of anxiety in combat was much greater than it was in the base section. The anxiety hysterias were fewer—55 cases (13.2 percent) in the combat group versus 63 cases (11.2 percent) in the noncombat group. Hysteria of the conversion type was uncommon—20 cases (4.8 percent) in the combat group and 43 cases (7.7 percent) in the noncombat group. Reactive depressions were few—nine cases (2.2 percent) in the combat group and 35 cases (6.2 percent) in the noncombat group.

Psychosomatic disorders.—The "other" category of psychoneurosis (psychosomatic) was not common in the combat soldier, only 13 cases (3.1 percent) but was high in the noncombat soldier, 137 cases (24.5 percent).

[3] This categorization of behavioral disorders as "organic" is illustrative of the nosological difficulties of this period where, if individuals did not fit in the diagnosis of psychosis or psychoneurosis, there was no other available psychological designation.—A. J. G.

This apparently was a harbinger of things to come because in the "other" group were the psychophysiologic or psychosomatic disorders, chiefly disturbances of the gastrointestinal type.

The base hospital medical officers were still "civilian-doctor" minded in their combat zone experience. In the forward area, the soldier who had gastrointestinal symptoms was likely to be held in the army and quickly returned to duty. A similar syndrome in the base section, however, was more likely to be given a "civilian" type of workup. This tended more to fix the symptom than to ameliorate it. The results of the internist's solicitude in seeking for the ulcer, the gallbladder disease, or any other cause for the dyspepsia were seen in the disposition figures.

It must be recognized, however, that the soldier with the visceral neurosis who reached the base hospital after combat was the one who had failed to respond to therapy at division, field, and evacuation hospital level.[4] The same was true, although to a lesser extent, for the man in the base center who may have been at a company aid station or at a station hospital. The individual who finally arrived at the general hospital level usually had his symptoms fixed. Therefore, it was not anticipated that too many of them would be returned to duty (tables 3 and 4).

Combat neuroses.—In the total group (416 cases) of combat-induced neuroses (table 3), 15 patients (3.6 percent) were returned to full duty from the general hospital, 55 (13.2 percent) were assigned to limited service, 50 (12.0 percent) were transferred by command, and 296 (71.2 percent) were returned to the Zone of Interior. The non-combat-induced neurosis (560 cases) (table 4) was not much different. The group saved was a little larger but really not significantly so—34 (6.1 percent) returned to duty, 88 (15.7 percent) assigned to limited service, 34 (6.1 percent) transferred, and 404 (72.1 percent) returned to the Zone of Interior.

As these patients filtered down to the general hospital level, there was little difference in the number of men who were lost as effectives (approximately 70 percent) in terms of whether theirs were combat- or non-combat-incurred disturbances. The problem lay in the personality immaturity, the dependency and the separation from home, rather than in such prime factors as exposure to danger and cold, anxiety about being killed, and loss of comrades.

Psychosis

In the psychosis group (171 cases), there was a remarkably low incidence of the development of a true schizophrenic reaction during combat. As already mentioned, the 12th General Hospital had a mature psychiatric team. It considered the pseudopsychotic reactions and the rapidly reversible dissociative syndromes of combat, where the ego maintained contact with

[4] There were no division psychiatrists during this period.—A. J. G.

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reality, to be in the neurosis category. Therefore, it was not surprising to find a low incidence of true schizophrenia in the combat group.

Schizophrenic reactions did not appear to be precipitated by the combat situation. Furthermore, by the summer of 1943, the toxic reactions from overdosage of sedations or from drug-induced paralysis of the defense mechanism had essentially disappeared. The troops were much more seasoned. They had a better concept of what combat was like. Therefore, in a group of 121 patients who showed schizophrenic reactions, only five (4.1 percent) were associated with combat and 116 (95.9 percent) were noncombat associated.

True manic-depressive reactions were infrequent. None was seen in the combat group and only 23 (13.5 percent) in the noncombat. There were 27 patients in the "other" variety. These included the constitutional psychopathic states with psychosis, epilepsy with psychosis, and organic psychoses. They constituted 15.8 percent of the total psychoses.

Mental deficiency and constitutional psychopathic states

Noneffective mental defectives were seldom found in a combat group, because by this time (1943) the divisions had been carefully combed of such retarded soldiers and many had already been disposed of through administrative channels. In the base section, where they were admitted directly to the 12th General Hospital, they made up a total of 75—4.7 percent of the total 1,600 neuropsychiatric patients seen but 7.2 percent of the noncombat group (1,041 cases). The same conclusion could be reached on admissions with constitutional psychopathic states which included the inadequates, the unstable, the paranoids, those with sexual aberrations, and the like. These problems had already been cleared out in the army area through administrative channels. They made up 81 patients in the base section—5.1 percent of all patients and 7.8 percent of the noncombat group.

Organic disorders

Of the organic disorders, the epilepsies were rare. There was only one case in the combat-associated group but 51 from the base section—3.2 percent of all the patients and 4.9 percent of the noncombat group. The concussions were fairly high—79 (14.1 percent) in the combat group and 47 (4.5 percent) in the noncombat. The "other" organic disorders made up a variable group of neurological diagnoses varying from malaria involving the brain, encephalitis, to the occasional brain tumor and degenerative disorders. Some polyneuropathies in the course of deficiency states were seen in instances of protracted vomiting after severe gunshot wounds, and an occasional viral infection of the Guillain-Barré variety was observed.

This writer (Boshes) does not recall a single instance of clear-cut multiple sclerosis in his neurological material during the North African stay.

Evacuation

The 12th General Hospital was based at Oran, the major shipping point of the North African theater. Patients reaching this hospital were expected to have the least chance for rehabilitation to duty; therefore, the proportion to be evacuated to the Zone of Interior would be high. Of the group with the combat-induced neuroses, 71.2 percent were shipped to the United States, as against 72.1 percent of the noncombat. Of the combat-induced associated psychoses, three (60.0 percent) of five were evacuated to the Zone of Interior; of the noncombat, 153 (92.2 percent) of 166 were evacuated.

In most instances, it was possible to convert the disturbed patient into a nondisturbed, easily managed person who could be handled readily in the transport facilities; that is, the hospital ships and the converted freighters that were available at the time.

Most of the mental defective patients in the 12th General Hospital were evacuated to the Zone of Interior because useful persons in this category, who could serve as truck helpers, orderlies, ward helpers, and the like, remained in their units and were not hospitalized. Some of the persons with constitutional psychopathic states could be salvaged for some form of duty; the majority, however, were returned to the Zone of Interior. A few epileptics proved to be amenable to treatment and were assigned to limited service; most had to be evacuated.

NAPLES PERIOD, DECEMBER 1943–JUNE 1944

The 12th General Hospital began to wind up its affairs in North Africa in December 1943. The last section to close was the disturbed ward of the psychiatric unit because there was no place to send the patients, and no ship was available. It was not until other psychiatric facilities became available in the newly developed hospital center, east of Oran, that the psychiatric unit was evacuated, the gear packed, and the staff able to join the rest of the hospital which was now staging for the move to Italy.

Shortly before the 12th General Hospital left North Africa, Captain Ranson was detached and assigned to the "601st," the Fifth U.S. Army Neuropsychiatric Center, that was to make history in the forward area.

General Considerations

The unit landed in the harbor of Naples on 26 December 1943, but was not established as an operational organization until June 1944, when the hospital moved into Rome.

In the interim, the officers were farmed out on temporary duty to various hospitals which needed the help of war-experienced medical specialists. Major Boshes was sent first to the 17th General Hospital and then to the 45th General Hospital to work on psychiatric problems. Both hospitals were new to the theater. The 45th General Hospital had most of the neuropsychiatric patients. It was later to be designated as the base hospital for the holding and disposition of neuropsychiatric patients who were to be evacuated from the port of Naples. Unfortunately, its psychiatric chief had been injured and could not accompany the hospital overseas. Major Boshes, therefore, helped to organize the psychiatric services and stayed with the 45th General Hospital until May 1944.

Military Psychiatry Matures

The group functioning around Naples in the winter of 1943–44 was a different psychiatric team from the one that had arrived in North Africa a year earlier. Psychiatrists had made the transition from their civilian status and were fully committed to military neuropsychiatry. Their goal was to save men for combat and for work in the Mediterranean theater; also, to screen out the noneffective, the psychotic, and the troublemaker, and to eliminate them quickly so that they would not use up too many man-hours. The mature psychiatrist now recognized that he was part of a continuum of care of these patients. He was not working in vacuo, so to speak, no matter what his position in the chain of medical evacuation. He was part of a military program.

Furthermore, the tactical situation was favorable from the standpoint of transport and patient care. Cassino lay just north of Naples, on Highway No. 6, only a few hours from the base section. Casualties could be brought from the Anzio beachhead in the nightly LST (landing ship, tank). The long delays seen in the African campaign no longer obtained. Psychiatric casualties could be handled promptly at the 601st or other designated army hospitals; if this treatment was not effective, they could be moved rapidly to a base hospital, psychiatric or general, for more definitive measures. Furthermore, a psychiatrist at the base hospital section could go forward and observe what was taking place psychiatrically at the 601st or at the division level. There was a realism to psychiatry in forward areas which could be well applied in the base section practice, even though the latter had the special function of final disposition.

The late fall of 1943 and the winter of 1943–44 were periods of high psychiatric casualties in the Mediterranean theater. All military operations were uphill, and the Cassino stalemate was an illustration in point. The desperate attempt to cross the Rapido River in the dead of winter was an example of the difficult military situation which brought such a high percentage of psychiatric casualties. The Anzio beachhead with its completely

exposed position, for the men in battle and for the hospital personnel, was another.

The experience at the 45th and 17th General Hospitals and, particularly, the lessons learned at the 601st, backed up by a year of solid experience in North Africa, stressed the need for a complete reorientation of the nature of psychiatry in war. Also, Major Boshes with others from forward and base areas had organized a neuropsychiatric society which met monthly to share problems. Officers from command, especially those concerned with personnel matters, were invited to participate in the meetings. In short, a high level of communication was developed between the neuropsychiatrist and command, all of which redounded to better psychiatric care.

ROME PERIOD, JULY–NOVEMBER 1944

The 12th General Hospital was located in Rome in an Italian barracks, Caserma Pietralata, a group of modern buildings which had housed an Italian cavalry unit. The main building was given over to the hospital proper and the psychiatric section was placed on the fifth floor. A closed section was built, the open section was developed, offices were erected, and the unit began to function very quickly.

The location of the 12th General Hospital did not pose the problem of delay in receiving combat psychiatric casualties that was present in the North Africa experience. After the breakthrough at Cassino and the breakout at the Anzio beachhead, combat activities had moved north of Rome and, in the summer of 1944, continued up toward Florence. It was relatively easy to evacuate patients rapidly to Rome from the battle areas. The situation was much like that described previously in the experience of the 45th and 17th General Hospitals. Such patients as were designated for further evacuation to the Zone of Interior were shipped to Naples, either for disposition directly or for transfer into one of the hospitals for holding until a hospital ship or other transport became available.

Statistical Data

Figures are available for the Rome period, from 1 July to 1 November 1944. Unfortunately, the statistical forms in that period, except at the very end, called only for disposition categories of "duty," "Zone of Interior," and "transfer." Therefore, "duty" cannot be broken down precisely as to combat or limited service. Furthermore, the 12th General Hospital, a 2,000-bed unit, was expansible during periods of high military activity to a 3,000-bed capacity; it also contained a rehabilitation section, with obstacle courses and the like. Consequently, many men were assigned to "duty" but were sent for rehabilitation. There was no way of knowing whether these

men, after retraining, were able to return to combat duty, to full duty in the base section, or to a limited type of assignment.

Psychoneurosis

Of the 1,279 cases available for analysis (tables 5, 6, and 7), 924 (72.2 percent) were psychoneurosis—691 (74.8 percent) combat associated and 233 (25.2 percent) of the noncombat variety. In the combat group (table 6), the anxiety states were preponderant—433 (62.7 percent) of the 691 cases. In this psychoneurosis group, 175 (25.3 percent) were in the "other" category which included the psychophysiologic or psychosomatic disorders and the compulsive-obsessive and phobic states. In contrast, the noncombat group of 233 cases (table 7) contained 36.5 percent of anxiety states and 54.9 percent of the "other" category. The anxiety hysterias and true hysterias made up a very small group. It is of interest that reactive depressions were very few—only eight patients in 691 of the combat group and four of 233 in the noncombat—as were posttraumatic neuroses, five instances in 924 patients (0.5 percent).[5]

The realistic handling of these problems was seen in disposition to some form of duty (tables 6 and 7)—95.0 percent of the men were sent to this category, many into limited service, it is true, but to some useful function. Of the combat group, 679 (98.3 percent) were returned to duty, and of the noncombat type, 199 (85.4 percent). The rehabilitation program enabled some discharged patients to return to full-duty status. These patients were

TABLE 5.—*Distribution of 1,279 neuropsychiatric casualties, combat and noncombat, 12th General Hospital, Mediterranean Theater of Operations, U.S. Army, 1 July–1 November 1944, by diagnosis*

Diagnosis	Admissions		Combat		Noncombat	
	Total number	Percent	Number	Percent	Number	Percent
Psychoneurosis	924	72.2	691	74.8	233	25.2
Psychosis	51	4.0	15	29.4	36	70.6
Concussion	58	4.5	17	29.3	41	70.7
Epilepsy	9	.7	2	22.2	7	77.8
Constitutional psychopathic states	31	2.4	1	3.2	30	96.8
Mental defectives	22	1.7	0		22	100.0
Other organic syndromes	184	14.4	115	62.5	69	37.5
Total	355	27.8	150		205	
Grand total	1,279	100.0	841		438	

[5] It should be evident that civilian-type neuroses were infrequent.—A. J. G.

TABLE 6.—*Distribution and disposition of 691 of 1,279 neuropsychiatric patients, psychoneurosis, combat associated, 12th General Hospital, Mediterranean Theater of Operations, U.S. Army, 1 July–1 November 1944, by category*

Category	Admissions		Disposition		
	Total number	Percent	Returned to duty	Evacuated to Zone of Interior	Transferred
Anxiety	433	62.7	427	6	0
Anxiety hysteria	32	4.6	32	0	0
Hysteria	40	5.8	40	0	0
Reactive depression	8	1.2	6	2	0
Posttraumatic neurosis	3	.4	3	0	0
"Other" (psychosomatic)	175	25.3	171	4	0
Total	691	100.0	679	12	0

TABLE 7.—*Distribution and disposition of 233 of 1,279 neuropsychiatric patients, psychoneurosis, noncombat associated, 12th General Hospital, Mediterranean Theater of Operations, U.S. Army, 1 July–1 November 1944, by category*

Category	Admissions		Disposition		
	Total number	Percent	Returned to duty	Evacuated to Zone of Interior	Transferred
Anxiety	85	36.5	79	6	0
Anxiety hysteria	3	1.3	2	1	0
Hysteria	11	4.7	11	0	0
Reactive depression	4	1.7	0	4	0
Posttraumatic neurosis	2	.9	2	0	0
"Other" (psychosomatic)	128	54.9	105	23	0
Total	233	100.0	199	34	0

removed from the hospital atmosphere of nurses, white sheets, and beds, as quickly as possible, and put back into a military situation.

Psychosis

During the period of July–November 1944, 51 cases of psychosis were seen—15 in men in combat and 36 in noncombatant personnel. The schizophrenias were by far predominant. Of the 15 combat-associated cases, 10 were in this category, as were 19 of the noncombat group. Thus, of all the psychosis, 29 (56.9 percent) were schizophrenia. There were four instances of affective reactions, usually depressions, all in the noncombatant group. In the "other" category were some of the organic psychoses—toxic, drug, and the like. The loss of these men was almost absolute, 50 of the 51 patients

being returned to the Zone of Interior. Only one patient with a toxic psychosis was returned to duty.

Constitutional psychopathic states and mental defectives

Constitutional psychopathic states made up the next largest category. Only one such patient was seen from a combat unit, and he was returned to duty. Obviously, such cases were not evacuated to a general hospital. In the rear areas, 30 cases were seen in the noncombat group. In short, 96.8 percent of the constitutional psychopaths were seen from the base section, 30 of the 31 cases. Of the 30 patients, 25 were returned to duty and five were returned to the Zone of Interior. Mental defectives apparently had been screened out of the combat outfits, but some cases were seen from the base section units. Of 22 cases, 17 (77.3 percent) were returned to duty, and five (22.7 percent) were sent home.

Organic disorders

Of 58 cases of concussion seen, 17 (29.3 percent) were in the combat group and 41 (70.7 percent) in the noncombat group. Of the 17 combat cases, 10 (58.8 percent) went back to duty; of the 41 noncombat, 36 (87.8 percent) returned to some form of duty. Of the total group, 46 (79.3 percent) of 58 returned to some form of duty. The epilepsies were not frequent in combat personnel; only two patients were seen, and both were able to return to some form of limited service. Of the epileptics seen in the base section, seven were returned to the Zone of Interior. Electroencephalography was not available during this period.

The remaining organic group consisted of various disorders involving traumatic lesions (brain, spinal cord, and peripheral injuries), infectious diseases (viral hepatitis and malaria), encephalitic reactions (Guillain-Barré syndrome), and diseases of undetermined etiology. There were 115 such cases in the combat group and 69 in the noncombat, for a total of 184 cases. Of these, 80 of both groups (43.5 percent) were returned to duty. Since the group was so heterogeneous, there was no way of comparing combat and noncombat groups. However, a proportionately larger number of the noncombat men returned to duty, 47 of the 69 cases as against 33 of the 115 combat variety.

Return to Duty

It was difficult to determine exactly what had been accomplished in the period of the war by returning the men to duty because the statistical data were not reported on the basis of whether persons were assigned to full duty or to limited duty. Thus, there was no way of determining how many

of these men went back to actual combat duty, even at a later date. For example, one of the 12th General Hospital's own personnel, a mess sergeant, suffered a very deep depression which required electroshock treatment. He went into an excellent remission and was able to return to full duty in the kitchen, working effectively as a mess sergeant for a number of months. Later, in the fall of 1944, when there was a call for class A men to fill the depleted ranks of some of the fighting divisions, this man was given infantry training for 2 months and then assigned to combat duty with the 10th Mountain Division. This writer (Boshes) saw him at the end of the war—lean, tanned, and hard. He had been in continuous combat as a sergeant, leading patrols, doing the work of the infantry soldier with greater equanimity than he had performed his duties in the messhall.

LEGHORN PERIOD, NOVEMBER 1944–JULY 1945

In November 1944, with the battlelines north of the Arno River and fighting stalled at the Gothic Line, some base hospitals were moved farther forward to decrease evacuation time. The 12th General Hospital was among those that made the move. Travel was by hospital ship to Leghorn, where the hospital was located on the site of Colonia, in the buildings of a school that had belonged to a railway union guild. The neuropsychiatric section was established in a building of its own. The first floor was redesigned to contain the receiving section and a well laid out closed unit. The second floor was a completely open section. The hospital was situated on the beach of the Ligurian coast. Unfortunately, the beach area was heavily mined, and the danger zone began within 12 feet of the door of the neuropsychiatric building. A corrugated iron fence separated this minefield from the "safe areas," but the drifting sands piled up against the fence, so that it was possible to walk across into the minefields.

The establishment of the 12th General Hospital was not without its price in personnel. Many of the rooms had been boobytrapped, and a number of engineers were fatally injured while opening the doors or shutters. The water supply was completely contaminated by a crossing of the sewage and the drinking-water pipes. The heating plant had been blown out. The retreating Nazis had had time to do a thorough sabotage of what was once a very fine children's school. However, it was not too difficult to settle down quickly to effective work. The make-do abilities of an outfit that had been in a theater of operations for 2 years were high.

The 12th General Hospital was strategically placed just off the port of Leghorn, a port almost as busy as that of Naples or Oran. It was a major area for embarkation and debarkation and an important base for supplies. The battlelines were to the north, less than 2 hours by vehicle, and casualties could be received early, thanks to good roads which facilitated evacuation. The 601st had preceded the hospital and was located at the level of the

evacuation hospitals, supporting the division psychiatry program. The three levels of psychiatric care which had been established in the spring of 1944 had sharply reduced the flow of psychiatric casualties to the base hospital.

Statistical Data

Psychoneurosis

From 16 December 1944 to 1 July 1945, of the 738 neuropsychiatric cases (tables 8, 9, and 10), 423 were psychoneurosis. Of these, 316 (74.7 percent) were in combat personnel; 107 (25.3 percent), in noncombat. The combat-associated anxiety reactions (145 cases) (table 9) were 45.9 percent of the entire combat group; they made up only 28.0 percent (30 cases) of the noncombat (table 10). There were 175 instances of anxiety state, combat and noncombat, but of these the former constituted 82.9 percent and in the latter only 17.1 percent of the cases. In contrast to this were 243 cases of "other" neurosis. These were the psychophysiologic reactions and the compulsive-obsessive and phobic states; 169 of them were combat associated. The 169 constituted 53.5 percent of the combat neurosis. In the noncombat group, there were 74 with the so-called other category in a group of 107 cases, or 69.2 percent incidence. In short, there was a higher incidence of the visceral and more formal neurosis in the noncombat group. Now, more of the civilian types of psychoneurotic reactions were becoming apparent.

An analysis of the ultimate duty status of these patients reflected the several factors which were then operative—the winning of the war, early treatment, better triage, and better active therapy of these soldiers. In the combat group (table 9), 62 (19.6 percent) of the 316 were returned to full combat duty; 232 (73.4 percent) were assigned to limited service; and only

TABLE 8.—*Distribution of 738 neuropsychiatric casualties, combat and noncombat, 12th General Hospital, Mediterranean Theater of Operations, U.S. Army, 16 December 1944–1 July 1945, by diagnosis*

Diagnosis	Admissions		Combat		Noncombat	
	Total number	Percent	Number	Percent	Number	Percent
Psychoneurosis	423	57.3	316	74.7	107	25.3
Psychosis	74	10.0	26	35.1	48	64.9
Concussion	51	6.9	44	86.3	7	13.7
Epilepsy	24	3.3	11	45.8	13	54.2
Constitutional psychopathic states	23	3.1	2	8.7	21	91.3
Mental defectives	17	2.3	0		17	100.0
Other organic syndromes	126	17.1	78	61.9	48	18.4
Total	738	100.0	477		261	

TABLE 9.—*Distribution and disposition of 316 of 738 neuropsychiatric patients, psychoneurosis, combat associated, 12th General Hospital, Mediterranean Theater of Operations, U.S. Army, 16 December 1944–1 July 1945, by category*

Category	Admissions		Disposition			
	Total number	Percent	Returned to duty	Assigned to limited service	Evacuated to Zone of Interior	Transferred
Anxiety	145	45.9	24	110	11	0
Anxiety hysteria	0	-------	0	0	0	0
Hysteria	2	0.6	0	2	0	0
Reactive depression	0	-------	0	0	0	0
Posttraumatic neurosis	0	-------	0	0	0	0
"Other" (psychosomatic)	169	53.5	38	120	11	0
Total	316	100.0	62	232	22	0

TABLE 10.—*Distribution and disposition of 107 of 738 neuropsychiatric patients, psychoneurosis, noncombat associated, 12th General Hospital, Mediterranean Theater of Operations, U.S. Army, 16 December 1944–1 July 1945, by category*

Category	Admissions		Disposition			
	Total number	Percent	Returned to duty	Assigned to limited service	Evacuated to Zone of Interior	Transferred
Anxiety	30	28.0	9	12	9	0
Anxiety hysteria	0	-------	0	0	0	0
Hysteria	0	-------	0	0	0	0
Reactive depression	3	2.8	1	0	2	0
Posttraumatic neurosis	0	-------	0	0	0	0
"Other" (psychosomatic)	74	69.2	15	38	17	4
Total	107	100.0	25	50	28	4

7.0 percent were returned to the Zone of Interior. In the noncombat group (table 10), 25 (23.4 percent) were returned to full duty; 50 (46.7 percent) were assigned to limited service; 28 (26.2 percent) were sent home; and four (3.7 percent) were transferred. Three times as many base section men were sent home. The base section was now heavily loaded with limited-service personnel. As has just been mentioned, the civilian type of psychoneurotic reaction was becoming apparent in the soldier of the base section, since this area had been combed for class A effective personnel who had been put into the line for the final days of the war.

Essentially, the base section was a communications zone and already to the rear of any combat. On a few occasions, this so-called safe area was bombed, and one night, just before the end of the war, it was heavily shelled

by a few remaining naval craft the Germans had been able to send down from La Spezia. There were no serious reactions to this shelling. The only complaints were coughing and sneezing as a result of the heavy smokescreen which the U.S. Navy had laid down to protect the area (compare the reactions in the early North African days, pages 147–148).

Psychosis

From 16 December 1944 to 1 July 1945, 74 instances of psychosis were seen—10.0 percent of all the neuropsychiatric cases of that period. As usual, the schizophrenias were preponderant with 42 cases, an incidence of 56.8 percent. None of the affective psychoses were seen. Of 32 mixed psychotic reactions observed, five were among the combat group and 27 among the noncombat. All the psychotic patients of the combat group were returned to the Zone of Interior, as were most (72.8 percent) of the noncombat group.

Constitutional psychopathic states and mental defectives

Only two constitutional psychopaths were seen from the combat area. There were 21 patients from the noncombat sector—18 were sent back to full duty, one was assigned to limited service, and two were transferred. No mental defectives emerged from combat areas; 17 were seen in the noncombat regions, of which 10 (59.0 percent) were sent back to duty and seven (41.0 percent) were returned to the Zone of Interior.

Organic disorders

Of the 44 cases of concussion in the combat group, 14 patients were sent to full duty, seven were assigned to limited service, seven were sent home, and 16 were transferred for administrative reasons to other installations. There were only seven cases from the base section, usually the result of accidents. Four of the patients were returned to full duty, two were assigned to limited service, and one was transferred; none was sent home.

More epilepsy was seen because the 12th General Hospital was given a 4-channel Grass electroencephalograph in November 1944. The 11 men whose diagnosis of epilepsy was confirmed came from the combat area. All were evacuated to the United States. Thirteen cases developed in the base section. One patient, whose spells were very mild and easily controlled, went back to full duty because he was in a noncritical job; 12 were sent home.

COMMENTS AND CONCLUSIONS

It may be said that during the last year of the war, even though this was a very active combat period which included the battles of Cassino and Anzio, the fall of Rome, and the assault against the Gothic Line, with large

numbers of casualties, it was possible to set up a level of psychiatry in the base section, comparable to civilian psychiatry. A mature psychiatric team developed a plan whereby patients were given a comprehensive workup. Careful psychiatric evaluation was developed, and in some instances, apt corpsmen were trained to take what was essentially a social history. Psychological testing was available—Rorschach and Wechsler-Bellevue, Kent Raven Matrices, and Stanford-Binet intelligence tests. Neurological survey was routine, and electroencephalography was available. Techniques such as narcoanalysis, narcosynthesis, and hypnotism were important adjuncts to individual and group psychotherapy.

Finally, the psychiatrists themselves banded together in a society to exchange information. They arranged strong liaison with line officers and commanders, and with administration, achieving cohesiveness in the total effort. This made for a quick sharing of the knowledge, for a greater prophylaxis in the instance of psychiatric casualties, for more effective care of these breakdowns at an early level, and hence, for a tremendous saving of manpower.

Section II. 114th Station Hospital

Lawrence P. Roberts, M.D.

GENERAL CONSIDERATIONS

The background for the establishment of two specialized neuropsychiatric hospitals (43d Station (later 114th Station) and 51st Station) in the Mediterranean has already been presented in chapter I, as well as a report by the 43d Station Hospital on its first month of operation (19 July–18 August 1943) near Bizerte, and will not be repeated here.

When discussing the 114th Station Hospital, one must first consider the 43d Station Hospital, the direct predecessor of the 114th. After a few months of operation, it was found that a larger hospital was necessary, and the 43d was transferred to the 114th. This was not merely a transfer of patients from one hospital to another; it was also a transfer of command, the commanding officer of the 43d Station Hospital assuming command of the 114th Station Hospital, together with a transfer of the entire staff of neuropsychiatrists and the large number of psychiatrically trained nurses and enlisted personnel. As the one ceased to function as a neuropsychiatric hospital, the other took over.

ADVANTAGES OF A SPECIALIZED NEUROPSYCHIATRIC FACILITY

The early administrative problems encountered at the 43d Station Hospital were numerous. One was met by establishing reclassification and

disposition boards. The Surgeon, EBS, found it advisable to grant general hospital disposition powers to the 43d Station Hospital [6] so that cases of officers could be handled by the boards and these patients recommended for evacuation to the Zone of Interior or for reclassification to limited assignment, as indicated.

In a short time, the value of a special psychiatric hospital for the care of psychiatric battle reactions and other neuropsychiatric problems was clearly demonstrated. In a hospital exclusively devoted to this type of work, a definite policy for treatment, care, and disposition could be evolved and controlled. Previously, the cases had been treated in widely separated general and station hospitals, with policies and treatment varying in different hospitals. Patients studied and boarded for return to the Zone of Interior in one hospital were being reboarded and returned to duty by another hospital along the chain of evacuation. There were no definite standards for all to follow in considering the value of the soldier for further duty in the theater. The disposition of the inadequate, of the chronic alcoholic, and of those who presented disciplinary problems varied according to widely divergent opinions of the individual neuropsychiatrists in different hospitals.

Maj. (later Lt. Col.) Frederick R. Hanson, MC, consultant in neuropsychiatry to the Surgeon, NATOUSA (North African Theater of Operations, U.S. Army), was attempting to set up criteria for evaluation of neuropsychiatric cases as to treatment and disposition. The task was difficult. There was little opportunity for the widely separated neuropsychiatrists to discuss their problems and reach a common understanding.

With the formation of a special neuropsychiatric hospital, where a group of medical officers worked together on common problems, the difficulty was partly resolved. Ideas were fully exchanged, cases were considered in consultation, and a definite policy was set to mold the efforts of all to the same end. Differences in individual opinions as to the value of various individuals for service in the theater could be reconciled.

Results of treatment in a large number of cases were available so that definitive information could be submitted to command. Major Hanson used these statistical data to good advantage, with the result that matters largely the responsibility of command could then be handled more appropriately. Neuropsychiatrists from other hospitals and from the Army Air Forces were placed on temporary duty at the 43d Station Hospital. On returning to their respective units, these men were better prepared to deal adequately with neuropsychiatric problems. The 43d Station Hospital became a training ground where neuropsychiatrists could learn much about the practical care of emotional reactions to battle.

43d Station Hospital to 114th Station Hospital.—The changeover to the 114th Station Hospital on 6 December 1943 had been advised by the Surgeon,

[6] Station hospitals ordinarily were not permitted reclassification powers or to evacuate patients to the Zone of Interior.—A. J. G.

NATOUSA, to provide a larger hospital and better facilities for the care of neuropsychiatric patients. The physical arrangements of this hospital near Ferryville, in Tunisia, were well suited for the care of neuropsychiatric patients. The hospital occupied buildings formerly used as a naval school. The barracks utilized as wards were large and easily supervised. Other facilities were quickly constructed. A recreation and drill field was completed for the use of patients assigned to the rehabilitation program.

Many problems were encountered, however. For example, evacuation of patients to the Zone of Interior was slow during this initial period. At one time, considerably more than 400 patients boarded for evacuation to the Zone of Interior were held in the hospital waiting for transportation, usually hospital ships. Many of these patients remained in the 114th Station Hospital for weeks and even months before facilities for evacuation to the United States were available. The rehabilitation program was especially beneficial for these soldiers.

Training.—The original nursing staff and medical detachment of enlisted men at the 43d Station Hospital, and later the similar groups at the 114th Station Hospital, had had little or no previous training or experience in the care of neuropsychiatric patients. As so much depends on the intelligent cooperation of the psychiatrist, the nursing staff, and the ward personnel, immediate training was necessary. In separate classes, nurses and enlisted men heard lectures on the major phases of neuropsychiatric problems; also, they were given on-the-job training in practical problems encountered in the care of neuropsychiatric patients. This training was so effective that the British Emergency Medical Service arranged for two groups of their nurses to take the courses.

Following the transfer of the 114th Station Hospital to Rome in the summer of 1944, a school of military neuropsychiatry was established to train a limited number of medical officers and enhance their ability to sort, diagnose, and treat neuropsychiatric disease in hospitals, in field medical units, and in medical detachments of combat units. Each intensive course lasted for 6 weeks, and each class was limited to six officer students.

Changes.—In the period of more than 22 months during which the 114th Station Hospital and its predecessor, the 43d Station Hospital, functioned as special neuropsychiatric units, the overall neuropsychiatric picture changed frequently. Many circumstances accounted for these changes, the chief of which was the location of the hospital in relation to the active combat area. In the beginning, when the 43d Station Hospital was at Bizerte, active combat was in Sicily and evacuation was direct by plane or hospital ship. The casualties had passed through only one or, at most, two medical installations before reception at the 43d Station Hospital. When active combat moved on to Italy and the 114th Station Hospital remained at Ferryville, the situation changed. The chain of evacuation was lengthened. Patients were not received until weeks after they had been first hospitalized

and many had passed through two or more fixed installations such as general and other station hospitals in Italy. The 114th (43d) Station Hospital passed through four successive phases, which follow.

PHASE I: BIZERTE, 19 JULY–6 DECEMBER 1943

The invasion of Sicily began on 7 July 1943, and by 19 July, the 43d Station Hospital (fig. 19) was opened and received its first patients from Sicily. Most of the patients had left combat only a few days before their arrival at the hospital. As combat moved on to Italy in September, the situation changed, as previously mentioned. The statistical data which follow refer to this entire phase I period.

Of 3,102 neuropsychiatric patients admitted, 301 (9.7 percent) were psychotic and 110 (3.5 percent) were disciplinary problems. Among the total number, 1,349 (43.5 percent) were battle reactions. The disposition made of the 3,102 patients was (1) return to duty, 1,450 (46.7 percent); (2) transfer to other hospitals, 936 (30.2 percent); and (3) evacuation to the Zone of Interior, 716 (23.1 percent).

During phase I, a fairly large percentage of patients were transferred to other hospitals as far to the rear as Oran. Such transfers were necessary

FIGURE 19.—43d Station Hospital, Bizerte, Tunisia, 1943.

because, for a time, the number of patients received at the hospital far exceeded both its bed capacity and the number who could be returned to duty in a short period.

The return-to-duty rate for phase I does not present a true disposition picture. If one disregards the cases transferred prematurely because of overloading of the hospital, and considers only the group retained long enough for definitive disposition, then 65.0 percent were restored to some type of duty. In retrospect, there is little doubt that many patients, returned to the Zone of Interior early in phase I, could have been retained in the theater, at least on limited service.

The precipitating factors, considered to have had a direct bearing on the production of neuropsychiatric disorders in phase I, were as follows:

Combat incurred:

1. Length and intensity of battle.
2. Physical exhaustion from inadequate sleep and food and intercurrent illness.
3. Accidental shelling by friendly artillery or bombardment by friendly planes.
4. Entrapment in untenable positions.

Noncombat incurred:

1. Improper classification.
2. Worry about problems at home.
3. Fear of death and injury.
4. Poor food and living conditions.
5. Air raids.
6. Personality clashes.
7. Intercurrent illness.
8. Prolonged, unnecessary hospitalization.

PHASE II: FERRYVILLE, 6 DECEMBER 1943–15 MAY 1944

In the second phase, when the 43d Station Hospital had been superseded by the 114th Station Hospital (fig. 20), the Sicilian invasion had ended and the Italian campaign was well underway. The chain of evacuation had lengthened. Station and general hospitals were located in Italy, ahead of the 114th Station Hospital in the chain of evacuation. As a rule, patients had already experienced prolonged hospitalization—most had been transferred from hospital to hospital. With each transfer, symptoms had become more fixed and, for many patients, the volitional factor more marked. In addition, patients were screened more carefully in Italy, and only those with the more severe types of disorders, judged to require longer hospitalization, were evacuated to North Africa.

The problems of disposition were much more difficult. The hospital, situated in a base section, received neuropsychiatric cases from service

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FIGURE 20.—Views of 114th Station Hospital, Ferryville, Tunisia, 1943–44.

troops in the region. Disciplinary problems referred for opinion increased. The following statistical data refer to this phase:

Of 2,514 neuropsychiatric patients admitted, 350 (13.9 percent) were psychotic, and 147 (5.8 percent) were disciplinary problems. In the total number, 962 (38.3 percent) were battle reactions. The disposition made of the 2,514 patients was (1) return to duty, 1,644 (65.4 percent); (2) transfer to other hospitals, 126 (5.0 percent); and (3) evacuation to the Zone of Interior, 744 (29.6 percent).

These new factors in the precipitation of neuropsychiatric disorders were observed:

1. Use of inadequately trained recruits.
2. Poor discipline, poor battle morale, and unwillingness to keep going, and apathy toward the war.
3. Exposure to cold, wet weather.

PHASE III: ROME, 5 JULY–22 SEPTEMBER 1944

During phase III, Allied troops were advancing steadily, the invasion of France had begun, and there was a feeling of optimism on all sides. Most of the patients were received by air evacuation and reached the 114th Station Hospital (fig. 21) within a few days after the onset of acute symptoms. Many were direct transfers from the 601st. No longer were most of the patients those who had spent long periods in other hospitals. The statistical data reflect the changed conditions.

Of 1,206 neuropsychiatric patients admitted, 88 (7.3 percent) were psychotic, and 34 (2.8 percent) were disciplinary problems. Of the total number, 981 (81.3 percent) were battle reactions. The disposition made of the 1,206 patients was (1) return to duty, 1,046 (86.7 percent); (2) transfer to other hospitals, 35 (2.9 percent); and (3) evacuation to the Zone of Interior, 125 (10.4 percent).

FIGURE 21.—114th Station Hospital, Rome, Italy, July–September 1944.

Some new contributory factors were noted:

1. The length of battle trauma was more important in some divisions which had long been in combat, whereas in other divisions, recently committed to battle, it played only a minor part.

2. Improper screening at induction was a factor in these newer divisions which resulted in higher neuropsychiatric casualty rates during the first few days of combat. Many of those reacting early to battle conditions were quite evidently not combat material. They lacked the will to fight and keep going.[7]

PHASE IV: LEGHORN, 24 SEPTEMBER 1944–JUNE 1945

In this phase, as in phase II, there was a relative increase in the number of psychotic patients and of disciplinary problems. This change in proportion was caused, in part, by the relative decrease in battle reactions. The front-lines were relatively static during much of this terminal phase. The battle reactions seen were generally less severe with the exception of those occurring during the early part of January 1945, when some rather severe cases were received from the 92d Infantry Division. For this last phase, the statistical data are:

Of 8,648 neuropsychiatric patients admitted, 1,095 (12.7 percent) were psychotic and 428 (4.9 percent) were disciplinary problems. Of the total number, 4,028 (46.6 percent) were battle reactions. The disposition made of the 8,648 patients was (1) return to duty, 5,304 (61.3 percent) ; (2) transfer to other hospitals, 1,220 (14.1 percent) ; and (3) evacuation to the Zone of Interior, 2,124 (24.6 percent).

SUMMARY AND CONCLUSIONS

A completely specialized neuropsychiatric unit in the base section, such as the 114th Station Hospital (fig. 22), demonstrated certain advantages over general hospitals. The entire staff was oriented to one major medical specialty—psychiatry. The hospital atmosphere could be minimized. The psychiatric patients were not constantly mingling with the severely ill medical and surgical patients with whom they tended to identify or toward whom they felt resentment because infections and wounds were more tangible justifications for disability than were emotional disturbances.

Treatment methods were developed as fully as possible. Heavy sedation was avoided because of the confusional effects. Sedative wetpacks were used extensively to reduce severe agitation. Grossly agitated psychotic patients were treated with Metrazol (pentylenetetrazol) shocks initially. Later, when

[7] A common observation early in World War II, which was never validated. For a detailed discussion on the efficacy of psychiatric screening in World War II, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1967, pp. 740–746.—A. J. G.

FIGURE 22.—114th Station Hospital, Leghorn, Italy, 1944–45.

equipment became available, electroshock treatments were utilized. Individual and group psychotherapy was employed as much as circumstances permitted. Narcoanalysis was used extensively for neurosis with severe regressive or conversion symptoms. Reconditioning and occupational therapy programs were maintained as fully as available personnel and material permitted. During phase II, at Ferryville, seven infantry officers were actually assigned to the hospital on temporary duty (while awaiting their own reassignment to combat units from the replacement pool) to conduct the reconditioning program. This arrangement was analogous to the training and rehabilitation centers established by each infantry division in Fifth U.S. Army during the last year of the war.

Section III. 51st Station Hospital

Louis L. Tureen, M.D. [8]

ORGANIZATION AND STRUCTURE

The 51st Station Hospital was activated in September 1943, and established at Assi Bou Nif, just east of Oran. This special psychiatric facility was located in a hospital center but operated as an independent unit. In

[8] Deceased, 18 June 1968.

addition, each general hospital in the center had its own psychiatric unit which had no official connection with the 51st Station Hospital. Psychiatrists from various general and station hospitals in Casablanca, Rabat, Tlemcen, and other regions of western Algeria were detached from their units and ultimately assigned to the 51st Station Hospital. Of the original medical personnel of the hospital, only the chief of medicine, the dental officer, and the psychiatrist were retained on the staff; the others were transferred elsewhere. Ultimately, 10 psychiatrists comprised the psychiatric staff of the 51st Station Hospital. The primary function of this hospital was to receive and to treat acute cases of "combat exhaustion" which were evacuated from Italy.

INITIAL OPERATIONS

The first patients came from the invasion of Salerno, evacuated by ship from Italy. Many of this group had received emergency treatment at the evacuation hospitals functioning at the beachhead. The main patient load of the 51st Station Hospital was derived from casualties of the Italian campaign. They arrived in shiploads of 100 and 200 men and were assigned to ward tents of some 20 beds each. Usually, two such wards were the assigned responsibility of one psychiatrist.

Treatment

Treatment depended on several factors, among which were the training and experience of the psychiatrist, his attitude to combat patients, his ability to adapt himself to the exigencies of the situation, and, not the least, his personality. It was thought wise to provide an indoctrination program for the patients promptly after their arrival. They were assembled, sometimes as many as 200, in a large circus tent for a series of four lectures, introducing them immediately to such topics as the concepts of the nature of combat exhaustion, the purpose of the treatment, and the responsibilities of being a soldier. It was interesting to observe the salutary effect on the individual soldier of seeing himself addressed as one of a group of 100 to 200 men, all of whom were suffering from a similar type of illness. He could identify himself and his illness with many like sufferers.

Most of the patients were housed in open-ward tents. A small closed ward in a stone building contained 15 beds for the acutely disturbed or suicidal patients who were to be subjected to a different treatment program. The open-ward patients met their psychiatrist first as a group within the ward, and then in individual sessions. The first night of their arrival posed the problem of demand for hypnotics and sedatives. While in Italy, and during evacuation to North Africa, most of the patients had received "blue heavens" (Sodium Amytal) or "yellow jackets" (Nembutal [pentobarbital

sodium]). They demanded that this be continued. Explanations to the patient that this was not necessary because sleeplessness the first night was unimportant since no specific activities were planned for the next morning were accepted. Within 2 days, no further requests for these drugs were made. In this psychiatric hospital, with approximately 250 daily patient census, sleeping pills were not dispensed and were not required.

In individual interviews with the psychiatrist, the patients discussed their problems frankly with him, and conversations were oriented to the need to return to duty. The questions of the possibility of evacuation to the Zone of Interior were explored, and patients were encouraged to verbalize their feelings freely. When the psychiatrist came to a decision as to the patient's potentiality for further duty, the patient was so informed, before the case was presented to the disposition board for consideration. In only a few cases, it was necessary to resort to intravenous Sodium Amytal or to hypnosis for one or two sessions. The use of Sodium Amytal or hypnosis usually resulted in amazingly rapid amelioration of symptoms and was generally reserved for patients with gross conversion hysteria symptoms or with persistent amnesia.

After the second hospital day, as an adjunct to psychotherapy, drills, exercises, and parades were routinely employed. Only closed-ward patients were excluded. When the bugle call sounded assembly for these activities, many patients made a beeline for the latrine but were routed out to the parade ground. This effort to maintain military discipline and to minimize the hospital atmosphere could not be completely successful, since there were beds with sheets for these soldiers and nurses were in attendance.

During afternoon hours, recreational therapy was provided by the Red Cross. Occupational therapy consisted of carpentry, metalworking, newspaper printing, and various activities around the hospital, such as messenger service and typing, which served a useful purpose in augmenting hospital personnel. Patients organized shows for their own entertainment, lampooning themselves, their officers, and their physicians.

Small group therapy sessions were held with selected groups of patients. One of the more stormy sessions released angry and hostile feelings in a rather insubordinate group. This and several other stimulating and exciting sessions were characterized by the patients' expressions of anger against their wards, their fellow patients, their commanders, and their medical officers, rarely against the enemy. The sessions were discontinued after a brief trial.

Training

While located at Assi Bou Nif, the 51st Station Hospital undertook a program of training in military psychiatry for newly arriving psychiatrists in North Africa and for medical officers who would be presented with psychi-

atric problems in their respective units. Division psychiatrists from the 88th and 85th Infantry Divisions and the 2d Cavalry Division, then staging in North Africa preparatory to operations in Italy, were attached to the hospital. These, and medical officers representing battalion surgeons, replacement depot officers, and others served with the 51st Station Hospital for a period of 6 weeks, gaining actual experience in the handling of psychiatric casualties. Lectures given by the regular staff of the hospital oriented these officers in current views concerning military psychiatry and in methods for dealing with the problems presented.

It became necessary, in addition, to orient the nursing staff to the psychiatric patients since their previous assignments had been in nonpsychiatric duties. This was done through lectures and by informal conferences held in the wards. Nurses witnessed Sodium Amytal interviews and discussed, with the ward psychiatrists, the progress, relapses, and disposition of individual patients. In addition, nurses participated in recreational programs provided for the patients. Although insight and understanding among nurses varied considerably, a core of intelligent and cooperative nurses was developed which was of immense assistance.

For the disturbed patients in the closed ward, more drastic methods of treatment than narcosynthesis were required. Before electroshock therapy apparatus was available at the hospital, Metrazol convulsions were induced, one to three convulsions being required for remission of symptoms. Later, limited numbers of electroshock treatments (1 to 3) were used. It is noteworthy that only one suicide occurred among the 5,000 soldiers who were treated in the 51st Station Hospital over a period of 18 months, in North Africa, Italy, and France.

In March 1944, the 51st Station Hospital was transferred to Naples and there operated in the beautiful Villa Floridiana on the Vomero. In September 1944, the unit was transferred to Auxonne, France, where the hospital was set up in Caserne Napoleon. In each of these localities, the unit operated as it did in North Africa, with similar types of patients and similar disposition results, which will be discussed in the sections which follow. By the time the unit was transferred to Luneville in northeastern France, it began to operate again as a general station hospital, and its psychiatric function was deactivated.

CLINICAL MATERIAL

About 4,000 patients were studied in a period of 10 months. The nature of the clinical syndromes varied widely in different phases of the operations. Virtually all patients received directly from Army Ground Forces units, usually via the army psychiatric clearing company, were suffering from acute battle-incurred neurosis. The prognosis in this type of case was

excellent, the period of hospitalization relatively brief, the morale high, and disposition almost always to a reclassified form of duty (noncombat).

On the other hand, when large shipments of patients from other hospitals were received for domiciliary care while awaiting transshipment to the United States, the problem of managing a chronic, nonmotivated, therapy-resistant neurotic and psychotic hospital population arose. This problem became more complex with the progressive rise in this type of patient when poor shipping facilities prevented prompt evacuation to the Zone of Interior.

To appreciate the battle neurosis syndromes as observed in an active theater of operations, it must be remembered that the psychiatrist observes only one phase of continuously changing series of reactions that begins with the first precipitation of symptoms. Subclinical anxiety affects most soldiers in a theater before combat, but special circumstances are required to precipitate incapacitating clinical symptoms. It is necessary to gain some insight into what the patient was like before the given period of observation and how he is likely to respond to future situations. From the clinical material studied at this hospital, it was possible to select groups of patients that represented various, although certainly not all, clinical stages through which a patient may pass. The diagnostic categories were combat-induced neurosis, noncombat neurosis, constitutional psychopathic states, and psychosis.

Combat-Induced Neurosis

Customary practice in the theater differentiated between combat- and non-combat-incurred neurosis. The combat-incurred neurosis was arbitrarily so designated if the symptoms developed in or immediately after combat, or if the condition was directly attributable to combat. These criteria excluded patients whose symptoms developed in a rest period or were precipitated by some intercurrent illness or accident. In many such patients, anxiety and tension had been present or mounting since the combat experience. On the other hand, such a definition included all patients in whom combat-precipitated symptoms aggravated a preexisting neurotic syndrome. This arbitrary classification did, however, serve to designate for statistical purposes the number of men lost from the front as a direct result of psychiatric illness.

Acute types

These patients were received at the 51st Station Hospital within 3 or 4 days of their evacuation from the combat unit. They represented 88 percent of admissions to this neuropsychiatric hospital when it was operating in advanced base sections. Patients with acute anxiety states accounted for 75 percent, manifested predominantly by free anxiety; 2.5 percent were diagnosed as conversion hysteria; and the remainder showed a mixture of symp-

toms, of which anxiety was most pronounced, but to which were added hysterical, hypochondriacal, depressive, or obsessive reactions. On the whole, the symptoms were mild and responsive to therapy. The average period of hospitalization was 11 days. In this group, morale, cooperation, and eagerness to return to some form of duty were good. Customary terminology in this theater designated patients returnable for general duty as class A, for noncombat duty as class B, and for return to hospitals in the Zone of Interior as class C. The disposition of acute cases was as follows: Class A, 1 percent; class B, 96.5 percent; and class C, 2.5 percent.

Anxiety states.—In the North African campaign, the clinical findings of acute anxiety states differed markedly from those seen in the Sicilian and Italian campaigns. Therefore, judging all combat neurosis by the North African experiences would have led to erroneous conclusions. The overt evidences of anxiety in patients from the Sicilian and Italian campaigns were, generally, much less severe than in those seen in the Tunisia Campaign. During the North African campaign, the patients often showed anxiety accompanied by persistent coarse tremors of the extremities. Loss of appetite, restlessness, and insomnia were present. The patients felt apprehensive much of the time and were unable to refrain from jumping at the sound of a loud, unexpected noise.

In sharp contrast, most patients admitted to this base section neuropsychiatric hospital in Italy presented relatively benign findings. Since only the most severely neurotic patients evacuated from the front eventually reached the base section neuropsychiatric hospital for treatment, these differences in the clinical findings were remarkable. They were accounted for in part by the changing tactical situation, for conditions in the Sicilian and Italian campaigns were very different from those in the early part of the Tunisia Campaign, when unseasoned troops, faced by temporary enemy air superiority, developed severe panic reactions. These conditions were altered when the victorious offensives began in north Tunisia and continued during the Sicilian and Italian campaigns.

Next in the importance in accounting for the benign character of the anxiety reactions in the later period was the adequate psychiatric care provided for the first time in forward areas, reaching its highest efficiency with the establishment of army psychiatric units and the assignment of division psychiatrists. Sedation and rest were provided first at the battalion aid station and then continued through the division clearing station. Patients who could no longer perform in combat were rapidly evacuated through psychiatric channels, under continuous expert treatment. By the time these patients reached the forward army psychiatric unit or the base section neuropsychiatric hospital, their most severe symptoms had been eliminated, and thus the more serious complications were avoided.

As already mentioned, anxiety states represented 75 percent of all acute battle neurosis. Free-floating anxiety, the outstanding symptom of

the acute anxiety state, was manifested by tension and tremulousness of a relatively mild degree. Coarse tremors were rare, and headache, startle reactions, and irritability were infrequent. Battle dreams and insomnia were the most common complaints. Most of the patients appeared moderately tired and desirous of rest. The exceptional patient with hyperkinetic reactions and jerky or even parkinsonian tremors was free from these symptoms after 24 hours of wetpacks.

All these patients adjusted quickly to the hospital environment, were willing to cooperate and follow the routine of activities, and were appreciative of everything done for them. They improved rapidly and within a few days were usually completely symptom free and ready for noncombat duty. The usual period of hospitalization for most of these patients was 7 days.

Conversion hysteria.—Conversion hysteria was the diagnosis in 2.5 percent of the group. These patients were notable for their lack of visible anxiety. Many exhibited the classical "belle indiffèrence" characteristic of major hysteria. From most of them, a history of a fugue episode, acute panic reaction, or transient period of amnesia on the battlefield was easily elicited. Subsequently, various forms of motor disturbances were evident, including monoplegia, astasia-abasia, and transient weakness. There were also auditory, visual, and speech defects, and, more rarely, a persistent amnesia. In contrast to the situation in the North African campaign, patients of this group, from the Sicilian and Italian campaigns, were free of their major conversion symptoms by the time they reached the base section neuropsychiatric hospital. Gastrointestinal symptoms and somatic symptoms referable to injured regions or organs were more persistent. Patients with such symptoms were less responsive to hypnosis and suggestion, but most could be assigned to limited duty (noncombat) after a brief period of hospitalization.

Anxiety hysteria.—Soldiers with anxiety hysteria [9] comprised 9 percent of the patients with acute battle-incurred neurosis. Unlike those with simple hysteria, who displayed little overt anxiety, this group manifested a great deal of free anxiety. Their anxiety was not so intense as that of patients with anxiety states, nor were their hysterical symptoms as clearly defined as those of patients with conversion hysteria. The history usually showed that panic was the precipitating event. Transient fugues and amnesias occurred simultaneously. Neurocirculatory symptoms were pronounced in some of these patients.

Reactive depression.—Reactive depression occurred as a separate clinical entity in 0.7 percent of the patients with acute battle-incurred neurosis. In the early stages of the anxiety states, however, guilt feelings and reactive depression centering about the soldier's inability to remain in combat were prominent symptoms, particularly pronounced in commissioned

[9] A common diagnosis in the Mediterranean theater; usually designated patients with incomplete conversion (hysteria) manifestations.—A. J. G.

and noncommissioned officers with long periods of good service. Men with severe reactive depressions were inclined to be suicidal and were the least responsive to psychotherapy of any group. The prognosis was usually poor unless electroshock therapy was employed. Differential diagnosis from psychotic depression was established on the basis of the dynamic material elicited by narcoanalysis (Pentothal interview, also termed "narcosynthesis").

Other types.—The rest of the acute cases were grouped under the designation "other types." In these patients, there was no fixed pattern of symptoms. Most of them revealed histories of neurotic symptoms in civil life which had been reactivated and aggravated by combat experience. The chief symptoms were hypochondriacal. There were severe somatic complaints, gastrointestinal difficulties, backache, headache, arthralgias, or any combination of these symptoms, together with variable degrees of phobias, tension, anxiety, depression, and emotional instability. These patients were resistant to therapy but were generally able to perform noncombat duty after a period of hospitalization.

Subacute types

In this large group of patients, the clinical findings were intermediate between those of acute and chronic types. Descriptions of the various clinical pictures would be repetitious. These patients, who arrived at the rear from 10 to 21 days after leaving the front, made up 16 percent of admissions to the base section neuropsychiatric hospital. Anxiety states comprised 81 percent of the cases; conversion hysteria, 7 percent; reactive depression, 2 percent; and other types, 10 percent. Only rarely did cases seem to fall into the anxiety hysteria group. The level of morale in these patients was much lower than in patients with acute neuroses. Their disinclination to continue on foreign duty was obvious. The hospitalization period averaged 3 weeks, as compared to slightly more than 1 week for acute cases. Of this group, 70 percent were returned to limited duty, and 30 percent were evacuated to the Zone of Interior. None was returned to combat.

Pseudopsychosis

The term "pseudopsychosis" was applied to a type of reaction in which the patient was so out of contact with reality and his behavior so bizarre as to give an initial impression of a psychotic process. Although the clinical findings showed great variation, there were several distinctive features that qualified the illness as a separate group: The onset was relatively acute; the illness was battle induced, an important difference from a true psychosis; and the clinical response to therapy was good.

The 51st Station Hospital experience, however, was that few patients

in this group were able to continue on foreign duty. Although clinical reports from the Fifth U.S. Army Neuropsychiatric Center and from other base section hospitals indicated that abreaction was not a therapeutic measure for this group, at the 51st Station Hospital it was found that some of the withdrawn, retarded, and catatonic patients responded after barbiturate abreaction and continued to improve after rapport was established. The agitated, restless, and generally disturbed patients were received at this hospital after barbiturate therapy had failed in forward hospitals. They responded dramatically to electroshock treatment. In general, the illness most closely resembled catatonic schizophrenia, and this erroneous diagnosis was the one most frequently made.

At the other extreme were patients in a state of constant agitation. The movements were diffuse and apparently purposeless, there was complete disorientation, and no response was made to ordinary, simple factual questions. These patients were hypersensitive to sound and touch stimuli. Recovery was often slower than for the stuperous type, but again, the prognosis was good following a course of electroshock treatment. The patients groaned and moaned and sometimes muttered, sometimes screamed, for an hour at a time. Often, they repeated a significant word or phrase such as: "Let's duck," or "take cover!"

Noncombat Neurosis

When the 51st Station Hospital was operating in an advanced base section, 28 percent of admissions, patients evacuated from the front, gave a history of premilitary psychiatric difficulties. About half were capable of a normal adjustment in the military situation until they were exposed to combat. The combat situation increased anxiety and neurotic symptomatology to a degree that such patients were incapacitated for further duty. These patients were included in the data on combat-induced neurosis and are not considered here. In general, tolerance for combat in this group was lower than that of previously healthy soldiers, although in individual instances performance was surprisingly good. The clinical syndromes consisted of the usual symptoms seen in combat neuroses, superimposed on old symptoms.

For the remainder of this group, failure in the combat situation was part of a pattern of failure antedating the combat situation and military duty. Here, the combat situation was not of critical importance in determining hospitalization, and accordingly, these patients were classified with noncombat neuroses. The diagnostic categories were anxiety state, 50 percent; hysteria, 3 percent; and other types, 47 percent. Disposition was class A, 0.5 percent; class B, 90 percent; and class C, 9.5 percent. These patients were more resistant to therapy, but did well symptomatically when reassignment to noncombat duty was in prospect. Careful screening would

have eliminated many from original assignment to combat organizations.[10]

When the 51st Station Hospital was operating in a rear base section, this type of patient was drawn primarily from replacement depots. The usual forms of neurosis seen in civil life were represented: passive dependent persons; emotionally immature young soldiers; anxiety states, with neurocirculatory asthenia as the chief manifestation; conversion hysteria; and obsessive-compulsive types. The diagnostic groups were anxiety state, 25 percent; hysteria, 20 percent; reactive depression, 2 percent; and other types, chiefly with hypochondriasis, 53 percent. Disposition was class A, 4 percent; class B, 50 percent; and class C, 46 percent. About half of these patients were not originally suited for overseas duty.

Constitutional Psychopathic States

Soldiers with constitutional psychopathic states [11] comprised 10 percent of admissions when the hospital operated in a rear base section as contrasted with 1.8 percent in a forward base section. Chronic alcoholism, sex perversion, criminalism, inadequate personality, and emotional instability were represented. Disposition was class A, primarily for separation from the service under the provisions of Section VIII, AR (Army Regulations) 615–360 (later AR 615–368 and AR 615–369), 67 percent; class B, 28 percent; and class C, primarily because of concomitant disorders, such as episodes of psychosis or organic illness, 5 percent.

Psychosis

Soldiers with psychosis totaled 13 percent of admissions to the hospital. Schizophrenia comprised 59 percent, of which more than half were of the paranoid type, and manic-depressive psychosis, depressed type, 11 percent. Psychosis unclassified included mental defectives and constitutional psychopathic states with psychosis, and a few cases of pseudopsychosis that, on further study, were established as anxiety states with regression. Toxic psychosis, following febrile disease and drug or alcoholic intoxication, was diagnosed in a few patients. Malaria was particularly significant as an etiologic agent in this group. Whether malaria produced an encephalitis with subsequent psychotic reactions, or whether the psychosis was purely toxic in nature, was not clear. Clinically, the syndrome was not dissimilar from psychosis, following febrile diseases, injuries, or even childbirth in civil life. In most patients, there were no neurological abnormalities. In one patient, abnormal plantar reflexes persisted for weeks, and schizophrenic symptoms developed in the acute phase of a malarial attack, but continued for weeks

[10] See footnote 7, p. 174.

[11] Old terminology, prevalent in World War II. A catchall term of underlying behavioral and personality disorders; included also addictions and perversions.—A. J. G.

after he had become afebrile and the blood was free of plasmodia. Among the alcoholic intoxications, acute alcoholic furor was most common.

SUMMARY

The primary objective of treatment was to restore the maximum number of soldiers to duty as quickly as possible. Disabling symptoms were removed first, and then the patient was assisted in reestablishing himself as a functioning member of a military body. Because the demands on the psychiatric personnel were so great, it became a matter of extreme importance to devise a plan of continuous treatment, even in the face of relatively brief contact with each patient. Such a plan was successfully effected through a comprehensive program based on the simultaneous and coordinated use of individual and group therapy. Early establishment of rapport between patient and doctor was sought. Further contact was maintained on an individual basis as long as necessary and on a group basis by means of a continuous series of therapeutic and group-training activities.

Part II

EUROPEAN THEATER OF OPERATIONS, U.S. ARMY

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CHAPTER VII

Early Developments, Personnel, and Education and Training

Lloyd J. Thompson, M.D.

Volume X of "Medical Department of the United States Army in the World War," entitled "Neuropsychiatry," contains a detailed description of the neuropsychiatric services in the AEF (American Expeditionary Forces) in Europe. This volume was referred to frequently during World War II, for guidance in forming policies and for precedence in organizing units and services.[1] Much of value was found in the volume, and British colleagues referred to parts of it as a "bible" for their earlier neuropsychiatric developments in World War II. The "Report by the British War Office Committee on Enquiry Into Shell Shock" was also a source of valuable information, and a stimulus and basis for closer scrutiny and study of conceptions of what war does to man or men.

However, World War II in Europe was different from World War I in many respects. The Army Air Forces' activities in the Second World War had little in common with those of the First World War. The World War I trench warfare, which readily permitted relief and rest of units, was no longer used by the Ground Forces. New and more complicated weapons and machines had to be mastered. The soldier was more of an individual or a specific part of a small team and, therefore, more dependent for survival on his own resourcefulness and initiative. This was particularly true in the open warfare of movement following a breakthrough. Amphibious operations demanded additional training and brought more dangerous experiences. Fighting over beaches, through hedgerows, in mountains and forests, and in large river crossings presented a great variety of terrain without the protection afforded by the dugout. Because of these and many other factors in World War II, stresses and strains were greater, and tested more fully the capacity of the individual to adjust to "total war."

At the end of hostilities in ETOUSA (European Theater of Operations, U.S. Army), there were slightly more than three million soldiers in the U.S. Army Forces, representing at least one-third of the entire American Army. Approximately 500,000 men were in the Army Air Forces, and the remainder were in the Army Ground and Service Forces. There were 146

[1] This is the author's opinion. There is, however, evidence to the contrary for, despite the World War I neuropsychiatry volume, there was no "effective plan or real preparation for the utilization of psychiatry by the Army in World War II." *See* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1967, p. 17.—A. J. G.

general hospitals, 49 station hospitals, and 65 evacuation hospitals. Some estimate of the neuropsychiatric problem is apparent in statistics showing that, in Army Ground Forces medical installations, one psychiatric casualty was admitted for every five wounded men.

A chronological presentation of developments is not feasible because activities in several fields were going on simultaneously; thus, to go from one to another at any given time would present a confused picture. However, the span of just over 3 years in the European theater can be divided into three approximately equal periods: the organizing activities in 1942, extending into 1943—the early phase; the consolidating, training, and equipping of units and other preparations for invasion—the second or preparatory stage; from D-day (6 June 1944) until after the cessation of hostilities on V–E Day (8 May 1945)—the combat period. Establishing policies and translating plans into action were principal activities in the first period. Organizing hospitals, schools, and other communications zone services took priority in the second period. The story of neuropsychiatric services in the field armies falls mainly in the third period, with continuous changes in communications zone organization also running through this combat phase.

EARLY DEVELOPMENTS

Neuropsychiatric services in the European theater were at all times a part of the general medical services. In the Professional Services Division, Office of the Chief Surgeon, Headquarters, ETOUSA, the senior consultant in neuropsychiatry functioned under the chief consultant in medicine.[2] In all hospitals, the neuropsychiatry section was one of the divisions of the medical service. The term "neuropsychiatry" was maintained in keeping with the practice of not separating neurology and psychiatry except for those aspects of neurology which fell within the neurosurgical services.

The first psychiatrists arrived in the European theater in January 1942, with the 7th General Dispensary which was stationed in London. They were Lt. (later Capt.) Jack R. Jarvis, MC, and Lt. (later Capt.) Robert B. Sampliner, MC; both had had short but excellent training in psychiatry. Since the table of organization of the dispensary did not provide for neuropsychiatrists, the psychiatrists did general medical work but soon found that a fair proportion of their patients required psychiatric services. Later, the two officers were placed in authorized neuropsychiatric positions, and at the end of hostilities, each was the chief of a neuropsychiatric section in a general hospital.

The first regularly assigned psychiatrist was Capt. Daniel C. Dawes, MC, at the 10th Station Hospital in Northern Ireland. In February 1942, the

[2] This arrangement proved to be satisfactory, perhaps because of the personalities involved; but in a theater of operations the size of the European theater, the rank of neuropsychiatry on a level with medicine and surgery could be justified.

5th General Hospital was established in the same area. During the summer of 1942, the 30th and the 2d General Hospitals were established in England. Each hospital had only one trained staff psychiatrist. None of the hospitals had provisions for neuropsychiatric wards, but security for disturbed patients was quickly improvised with makeshift screening for windows. By the end of 1942, two more general hospitals had been established in England, but only one had an assigned psychiatrist. At that time, the neuropsychiatric wards in all five general hospitals were filled to capacity. Plans had to be made to augment these hospitals with psychiatrists available in the theater.

As in the early stages of the development of all neuropsychiatric services, attention was focused on the severe or outspoken conditions, especially the troublesome psychoses. Arrangements were made to care for U.S. Army psychotic patients in British military neuropsychiatric hospitals. This service by the British was rendered in close cooperation with the U.S. Army hospitals and the Office of the Chief Surgeon. Frequent and detailed reports were submitted by the British hospitals. Treatment given American patients was the same as that given British patients and was always of the highest caliber, even when medical personnel were in short supply. Most American patients improved to such an extent that they could be returned to U.S. Army hospitals before being evacuated to the Zone of Interior. This arrangement with the British continued until the U.S. neuropsychiatric hospital (36th Station Hospital (NP)) was opened at Exeter, England, on 23 January 1943.

Not all U.S. Army psychotic patients were transferred to British hospitals in those early months. It was amply demonstrated, particularly in the 30th General Hospital where Lt. (later Maj.) Douglas McG. Kelley, MC, was the psychiatrist, that, with makeshift protection, with judicious use of sedation and hydrotherapy (principally wetpacks), and with the services of a well-trained nursing staff, many patients with acute and even severe psychotic conditions could be treated and improved to the extent that they would no longer be troublesome. To illustrate: In November 1942, Lt. Col. (later Col.) Lloyd J. Thompson, MC, Senior Consultant in Neuropsychiatry, ETOUSA, witnessed the loading of a hospital ship with more than 200 psychiatric patients destined for the Zone of Interior; not one was under restraint, and each walked aboard.

Colonel Thompson, who had been appointed the European theater senior consultant in neuropsychiatry, in July 1942, arrived in the theater on 20 August 1942. Already present in the Professional Services Division, Office of the Chief Surgeon, were Col. James C. Kimbrough, MC, Chief, Professional Services Division, and Consultant in Urology; Col. William S. Middleton, MC, Chief Consultant in Medicine; and Col. (later Brig. Gen.) Elliott C. Cutler, MC, Chief Consultant in Surgery. Col. Rex L. Diveley, MC, Senior Consultant in Orthopedic Surgery, arrived in the theater with the senior consultant in neuropsychiatry. Headquarters for this group had just been

established, along with other divisions of the Office of the Chief Surgeon and the Services of Supply, in Cheltenham, England.

At this time, there were three general hospitals and two station hospitals present, each with a qualified psychiatrist on the staff. One psychiatrist, Capt. (later Lt. Col.) Donald W. Hastings, MC, had just been assigned to the Eighth Air Force and one, Capt. (later Lt. Col.) Frederick R. Hanson, MC, to the Northern Ireland Base Section. In addition to four medical officers [3] who were attending the British School of Military Neuropsychiatry, 10 medical officers who had had varying amounts of neuropsychiatric experiences were present in the theater, raising the total to 22.

These tentative notes were made in September 1942 by Colonel Thompson, concerning neuropsychiatric developments for the theater:

1. Establish psychiatric hospital in England.
2. Appoint two consulting psychiatrists for U.S. Army.
3. Later, establish separate center for war neuroses.
4. Have psychiatrists for each division.
5. Later, add consultants and have small "pool." In combat, some consultants could become corps consultants and the "pool" psychiatrists shifted to points where needed.
6. General hospitals should have wards for neuroses and some provisions for psychotics.
7. In time, other special hospitals for psychotics and for neurotics will be necessary as well as convalescent camps.

Except for the arrangements concerning consultants and a "pool," all of the listed plans were carried out.

Shortages of Facilities

Upon arrival, Colonel Thompson saw plans for the general and station hospitals that were being built by the British for the U.S. Army. The only special provision for psychiatric patients consisted of a small separate building with two rooms ("cells") located at the rear of the last building in the row of medical wards. Each "cell" had one barred window near the ceiling. All facilities, including mess, latrine, and bath, were located in the front of the adjoining medical ward, a far from desirable arrangement. Because of shortages of labor, materials, and time, especially designed neuropsychiatric wards could not be provided. However, it was possible to alter, to some extent, the interior of a single medical ward in each general hospital, and plans for such alteration were drawn by a hospital architect in the Hospitalization Division, Office of the Chief Surgeon, and Colonel Thompson. Later, the following memorandum was received from the Hospitalization Division: "On 21 January 1943 this office requested conversion of one general ward at all general hospitals in this Theater to a mental ward, as per drawing in this office No. 3–28/1, after consulting with the

[3] Including 1st Lt. Jack R. Jarvis, MC, and 1st Lt. Robert B. Sampliner, MC, from the 7th General Dispensary.

Professional Services Division. This now is at the British War Office for approval and making the necessary alterations."

In these plans, offices and facilities remained at the forward entrance of the ward, followed by space for 16 beds for improved psychotic patients who were not quite ready for an open ward. Back of this area was a unit of eight beds for the more obviously psychotic, and in the rear of the building were four seclusion or isolation rooms. The efficacy of the screening for windows and stoves depended on materials available to the local contractor. In many instances, alterations had to be made later, such as heavier doors and locks. Any flimsy protective devices only invited the unruly patient to see what could be done with them.

The four original U.S. Army general hospitals in the theater were located in brick buildings. In these installations, the hospital psychiatrist supervised the necessary alterations of the medical wards. These wards proved to be more satisfactory than those constructed in nissen huts. No special provisions were made for neuropsychiatric wards for station hospitals even though some of them later functioned as general hospitals.

For various reasons, the "two cell blocks," just mentioned, could not be eliminated from the building plans. One was built for each general and station hospital but used only for the storage of narcotics or other materials—never for patients.

As already stated (p. 191), it was difficult to arouse interest in providing for overt psychotic disorders for it was known that the incidence of such problems would be small. More and more emphasis was placed on the importance of the early recognition and treatment of the more prevalent nonpsychotic and borderline conditions. As early as 5 September 1942, Colonel Thompson, in a letter to Colonel Kimbrough, recommended that all general hospitals have a minimum of two neuropsychiatric wards (one closed and one open) and, as the hospital filled, an additional two or even three open wards; also, that neurotic patients be separated from the physically sick or wounded and psychotic patients be isolated from all other groups. It was estimated that about 10 percent of all admissions would go to the neuropsychiatric sections of the various hospitals. Also pointed out was that, in addition to the workload, considerable psychiatric consultation services would be required for the other wards, and outpatient neuropsychiatric services should be developed as far as possible.

Personnel Needs

Several meetings were held in the autumn of 1942 with neuropsychiatrists of the four British services (the British Army, the Royal Navy, the Royal Air Force, and the Emergency Medical Service) and of the Canadian Army, dealing with neuropsychiatric personnel. Out of the meetings came general agreement on the following recommendations:

One neuropsychiatrist for every 50 beds for psychotic patients.
One neuropsychiatrist for every 35 beds for neurotic patients.
One neuropsychiatrist for every 35 beds for organic neurology.

On the basis of the agreement, neuropsychiatric personnel requirements in a 1,000-bed general hospital were estimated as follows:

100 NP beds:	*Number of neuropsychiatrists needed*
60 beds for neurotics	2
20 beds for psychotics	½
20 beds for organic neurological conditions	½
5 to 6 hospital consultations per day	½
5 to 6 outpatients per day or 6 half-day clinics	½
Total	4

Eventually, the majority of the general hospitals had two psychiatrists. In several instances, there were three, but the third usually had had almost no previous experience or training in psychiatry or neurology. Where there were two psychiatrists on the service, not infrequently only one had had previous training in psychiatry. Almost all station and evacuation hospitals had one psychiatrist.

The need for and the shortage of psychiatrists was recognized early. In July 1942, the Royal Army Medical Corps generously offered to enroll four U.S. Army medical officers in its School of Military Neuropsychiatry at the Northfield Military Hospital (fig. 23). The chief of the Professional Services Division located four medical officers who were not in neuropsychiatric positions but who had had some experience in neuropsychiatry. These four officers attended the 3-month course and were then assigned to neuropsychiatric positions. Four more medical officers were located for the next course which extended into January 1943. By this time, plans had been completed for the opening of the U.S. Army School of Military Neuropsychiatry. This mingling of British and American officers was valuable in many ways. It must be noted again that the cooperation and valuable assistance of British colleagues were greatly appreciated. The eight officers who had attended the British course rendered effective service in neuropsychiatry during the remainder of the war.

Division Psychiatrists

Because of the importance of prevention and early recognition and treatment of psychiatric disabilities, Colonel Thompson recommended, in September 1942, that the position of division neuropsychiatrist on the staff of the division surgeon be reestablished.[4] Although it was recognized that

[4] (1) Letter, Lt. Col. Lloyd J. Thompson, MC, Senior Consultant in Psychiatry, to Col. J. C. Kimbrough, MC, Director of Professional Services, Services of Supply, European Theater of Operations, U.S. Army, 21 Sept. 1942, subject: Division Psychiatrist. (2) *See also* War Department Medical Field Manual 8–10, Medical Service of the Division, 27 Nov. 1940, p. 52.

FIGURE 23.—Consultants at British School of Military Neuropsychiatry at Northfield Hospital, England, 1943. Left to right: Capt. (later Maj.) Benjamin Cohen, MC; Lt. Col. J. B. W. Pearse, RAMC; Col. Lloyd J. Thompson, MC, Senior Consultant in Neuropsychiatry, European theater; Brigadier John R. Rees, Consultant in Neuropsychiatry to the British Army; Lt. Col. Ernest H. Parsons, MC; unidentified officer, and Maj. Jackson M. Thomas, MC.

in the desert fighting that the British were engaged in, in North Africa, the division neuropsychiatrist could not function very efficiently in combat, it was believed that his services before and after combat would be needed, and that the fighting in Europe would be of a somewhat different type so that the division neuropsychiatrist could function effectively.[5]

This recommendation was forwarded to the Surgeon General's Office by Brig. Gen. (later Maj. Gen.) Paul R. Hawley, Chief Surgeon, European theater.[6]

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[5] Even now (1967), as during World War II, many line and medical authorities, including senior psychiatrists, believe that division psychiatrists cannot function properly under conditions where troops are being moved rapidly in mobile warfare, for combat psychiatric patients need to be held for one or more days of treatment; in the active movement of combat troops, the holding of patients in forward areas cannot be readily accomplished. However, it is not clearly recognized that under such conditions of active movement there are few battle casualties and, consequently, few psychiatric casualties. Battle casualties and psychiatric casualties mainly occur when troops are locked in heavy combat, in either offense or defense. Under these conditions, when psychiatric casualties are numerous, the division psychiatrist can hold patients for the necessary forward treatment and thereby salvage considerable manpower.—A. J. G.

[6] Letter, Brig. Gen. Paul R. Hawley, Chief Surgeon, European Theater of Operations, U.S. Army, to The Surgeon General, U.S. Army, 3 Nov. 1942, subject: Psychiatrists in Combat Units.

In January 1943, the following reply was received:[7]

This brings up the question of division psychiatrists. After discussing the matter with [Col. Howard T.] Wickert and others of the Operations Service quite at length several months ago, we decided against the proposal. In one division under training that had for all practical purposes a division psychiatrist, it was quite evident that he was made the goat to get rid of individuals that company officers found any way objectionable or difficult to handle. As an alternative, [Brig. Gen. George F.] Lull [Chief, Military Personnel Division] agreed to see that a psychiatrist is included in the staff of every evacuation hospital. If psychiatrists had not been included in the staffs of your evacuation hospitals, please let me know. If you anticipate the evaluation and specialized management of functional battle casualties forward of the evacuation hospital it would seem to require two or more for every division. From contact with members of the Royal Army Medical Corps it is my opinion that some of them feel that psychiatry in British theaters of operation is being over-emphasized. We have Thompson's recommendation, which you favorably indorsed, that a psychiatrist be included in the medical staff of every division. If after thinking it over further you still are of the same opinion, my suggestion is that you make official request for sufficient psychiatrists to fill your needs and assign them over there.

Near the end of 1943, the War Department established the position of division neuropsychiatrist[8] for the first time in World War II.[9] At that

FIGURE 24.—The first class of division psychiatrists graduated in the European theater. Left to right: Capt. Harry M. Segenreich and Capt. Himon Miller, 2d Armored Division; Capt. Jack G. Oatman and Capt. Joseph J. Bradley, 1st Infantry Division; Capt. Arthur L. Burks, 28th Infantry Division; Maj. Paul V. Lemkau, director of the course; Capt. Donald M. McIntosh, Jr., 9th Infantry Division; Maj. David I. Weintrob, 29th Infantry Division; Capt. Harry A. Rock, 82d and 101st Airborne Divisions; Maj. Earl W. Mericle, 4th Armored Division; and Capt. Edward S. Cawley, 3d Armored Division.

[7] Letter, Brig. Gen. C. C. Hillman, Chief, Professional Services, SGO, to Brig. Gen. Paul R. Hawley, Chief Surgeon, European Theater of Operations, U.S. Army, 26 Jan. 1943, subject: Psychiatrists in Combat Units.

[8] WD Circular No. 290, 9 Nov. 1943. The circular designated "division neuropsychiatrist" and is further confirmation of the common use of the term "neuropsychiatric" during World War II to designate mainly psychiatrists and their activities.—A. J. G.

[9] Continued and repeated pressure from senior medical officers in the combat theaters finally influenced the decision at the War Department level to establish division psychiatry.—A. J. G.

time, several divisions in the European theater were without psychiatrists, and none could be obtained from the Zone of Interior. Accordingly, 15 medical officers were chosen from these divisions and given 4 weeks of intensive training at the School of Military Neuropsychiatry in the theater (fig. 24). Selection was based on previous performance as good medical officers and good soldiers, also, having a suitable personality to qualify for the work. Some of the officers had been in combat in North Africa. None had had specific training in psychiatry, but all were interested. Without exception, these men became successful division neuropsychiatrists. Other divisions, arriving overseas later, were supplied with well-trained psychiatrists.

It should be added that the 1st Infantry Division came to the theater in September 1942, with a well-qualified psychiatrist, 1st Lt. (later Capt.) John E. McGowan, MC, assigned to the nonexistent position of division neuropsychiatrist. In addition, he was to do regular medical work in a battalion aid station; he was also assigned as laundry officer, and was in charge of shoe repair.

Beginnings of Combat Psychiatry

The first concentration of U.S. Army troops in the European theater was in Northern Ireland. Captain Hanson, a citizen of the United States, who had come to England with the Canadian Army in 1940, transferred to the U.S. Army in July 1942. He was promptly appointed as consultant in neuropsychiatry for the U.S. Army in Northern Ireland. While continuing as a part-time consultant in neurology for the British Army, he coordinated U.S. Army neuropsychiatric services in this area—establishing outpatient and consultation services—and maintained close liaison with Ground Forces units. Out of this experience came patterns and recommendations for future expansions in England and on the Continent.

In October 1942, it became evident that some definite military operation was soon to start. The composition of the units being mobilized for this operation made it apparent also that, except for the part-time, undesignated neuropsychiatrist of the 1st Infantry Division, neuropsychiatry would be represented no farther forward than the general hospitals. (The 400-bed evacuation hospitals had a TO (table of organization) position for a neuropsychiatrist, but no such units were in the theater at the time. The 750-bed evacuation hospitals had no such TO position.) This situation was discussed in detail with the surgeon of the project, Operation TORCH, and emphasis was placed on the need for prevention and frontline treatment of psychiatric disabilities. The decision of the surgeon of the project was that if psychiatrists were needed they would be requested. The military operation proved to be the invasion of North Africa, which started on 8 November 1942. On 21 January 1943, a coded message was received from the headquarters of

the North African forces: "Select competent psychiatrist for assignment to ABS." Captain Hanson was chosen for the position (p. 4).

Before his departure, Captain Hanson conferred with Colonel Thompson, with the commanding officer of the 36th Station Hospital (NP), and with other neuropsychiatrists. Captain Hanson's tentative plans, submitted on 22 February 1943, are of interest in the light of subsequent developments (appendix A).

Psychiatric Combat Teams

Colonel Thompson submitted one recommendation which, although never carried out, should be mentioned. This pertained to psychiatric teams [10] for service during combat and was made on 26 April 1943, when it appeared that there would be no division psychiatrists. The recommendation, with some background information, follows:

1. At a meeting of the Committee on Neuropsychiatry (Dr. Winfred Overholser, Chairman) of the National Research Council, 7 March 1942, the subject of specialized mobile neuropsychiatric therapeutic units was discussed. The following motion, made by Dr. Tracy Putnam and seconded by Dr. J. C. Whitehorn, was passed:

"In view of the likelihood that acute psychotic and psychoneurotic states will develop in increasing numbers among the armed forces now that actual combat is in progress, this Committee strongly urges the creation of specialized mobile neuropsychiatric therapeutic units in all of the armed services, and would be glad to help in further elaboration of plans for them. In view of the small number of adequate psychotherapists available, this Committee would place especial stress on the necessity of careful selection of personnel."

2. In a memorandum, dated 23 March 1943, pertaining to psychiatric services in evacuation hospitals the following plan was suggested:

"In order to meet the need for forward psychiatric services and as an alternative plan for having psychiatrists for the two hundred and fifty (250) bed evacuation units, it is suggested that psychiatric teams be at the disposal of the corps surgeon to be sent to clearing stations, the small evacuation hospital units or wherever they could function best and wherever the need existed during combat. The team would consist of two medical officers trained in psychiatry and six or more enlisted men trained for this special kind of work. Such teams would be trained and held in reserve at the 36th Station Hospital (NP). The number of such teams needed in a corps will depend on the size of the corps and the type of combat. It is estimated that at least ten teams should be held in readiness."

3. Plans are being made to organize psychiatric therapeutic units or teams at the 36th Station Hospital (NP). This will be done for experience and demonstration, using the personnel of the hospital staff until the plans are more definitely formulated. Consideration will be given to special equipment as well as to the problems to be met and ways of meeting them.

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[10] Although psychiatric teams were never developed during World War II, they were established after World War II and were utilized in the Korean War and during the Vietnam conflict (TOE No. 8-500, 2 Mar. 1950 (revised 1 Apr. 1955), "Team KO: Psychiatric Detachment.").—A. J. G.

Evolution of Psychiatric Policy

The attitudes and policies concerning neuropsychiatry gradually evolved and changed, particularly during the first year.[11] During the latter half of 1942, most psychiatric patients admitted to hospitals did not appear reclaimable for future combat duty, or even for limited assignment. Among them were included the psychoses, mental deficiencies, "psychopaths," and chronic neuroses. The 10th Reinforcement Depot, in the European theater, in 1942, received a group of 150 men from a military prison, who had been marched under guard to the troopship in the Zone of Interior. The majority of these men had long histories of civilian and military delinquency.

Screening out.—With an objective of preparing armies for combat in the shortest possible time, the policy of the "screening out" process was continued during the remainder of 1942. There was little need for limited-assignment soldiers at the time, and the manpower supply seemed ample to prepare an army of totally fit men for combat. The need was recognized for not allowing soldiers to avoid overseas duty by going AWOL (absent without leave) or by other delinquencies. Nevertheless, the Chief Surgeon called the attention of the Surgeon General's Office to the number of "misfits" that were being sent overseas for duty in the theater.[12]

During the last 6 months of 1942, the general and station hospitals in the European theater returned only 25 percent of the psychiatric patients to duty in the theater. At the same time, about 21 percent of all soldiers evacuated to the Zone of Interior through medical channels were psychiatric patients. This was slightly lower than the rate of return to Canada by the Canadian Army during the same period.

Reclaiming for duty.—At the end of 1942, it was recognized that increased transportation of troops and supplies was becoming a problem, aggravated by enemy submarine activity. It took some time to replace a returned soldier, with the possibility that the replacement might be lost. The North African campaign was underway, and there was a need to prepare for combat actions. Accordingly, the pendulum swung toward the policy of returning as many men to duty as was compatible with efficient service. Thus, preparations were completed for the opening of a special neuropsychiatric hospital, the 36th Station Hospital (NP), where every

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[11] Although volume X of the history of the Medical Department of the U.S. Army in World War I was available and the British had considered parts of this report as a "bible" for their developments, and although we had the example and advice of the British, it appeared necessary to make a fresh start, at least overseas.

[12] In this connection, it is recalled that in July 1918 General Pershing sent the following message to the War Department: "Prevalence of mental disorders in replacement troops recently received suggests urgent importance of intensive efforts in eliminating mentally unfit from organizations new draft prior to departure from United States." *In* The Medical Department of the United States Army in the World War. Neuropsychiatry. Washington: U.S. Government Printing Office, 1929, vol. X, p. 58. This famous telegram was used repeatedly during World War II to justify psychiatric screening as a major lesson learned in World War I, although proof of its efficacy was never demonstrated. *See* Medical Department, United States Army. Neuropsychiatry in World War II. Volume 1, ch. VIII.—A. J. G.

FIGURE 25.—Neuropsychiatric patients undergoing training in military subjects in the schoolroom of the 36th Station Hospital (NP), Exeter, England, 1943.

effort was to be exerted and every method of treatment to be used to reclaim psychiatric patients for duty (fig. 25). While this special neuropsychiatric hospital served as a "patterning" and training center, all other hospitals utilized intensive treatment and rehabilitative measures to return patients to duty. A closer liaison with the 10th Reinforcement Depot gradually led to a better understanding in the duty assignment of psychiatric patients.

In January and February 1943, the rate of return to duty of all psychiatric patients from general and station hospitals remained near 25 percent, but thereafter it gradually rose to over 50 percent. At the First Conference of the Chiefs of Medical Services, on 25 March 1943, Colonel Thompson made the following remarks:

> I think this is a very opportune time to discuss psychoneuroses. I think the psychoneuroses that occur over here fall halfway between those who have just been inducted in the States and those that have developed in the front. The separation from home and the difficulties in new adjustment and the military difficulties have brought them out over here. There is one point. The question of differential diagnosis between psychoneurosis and psychopathic personality. If the person has been poorly adjusted from childhood he may develop some overlay of psychoneurotic symptoms, but he is a psychopathic personality.

The question of disposition is very important, and I think we must be much more hardboiled. They are here. We are going to redouble our efforts in every way to find some place where they can be fitted here. We have sent a great many of them back to the States, but we are now going to see what we can do about finding them a place. That calls for additional facilities. I am not saying anything ahead of time, but there is talk now of having special training battalions for taking care of the psychopaths and the neurotics who don't seem to adjust very well in any regular unit. We already have a neurosis center at the 5th General Hospital, which is mainly for the flying personnel, but at the 36th Station Hospital we shall have a larger neurosis center where a very definite program will be evolved.

I have another point that I want to make, and that is that these neuroses will find their way into station and general hospitals, probably with some other diagnosis. Someone wants to get a change of personnel somewhere, and they may come in with flat feet or some other diagnosis. You then find they are really psychoneurotics. I think the station and general hospitals should do what they can to register those patients and return as many as possible back to the units from which they came. Talking to Col. [Oramel H.] Stanley [Deputy Chief Surgeon, ETOUSA], I said that when we return them to the unit they bounce back to the hospital. I think we should keep trying in spite of all that. If that sort of procedure won't get us anywhere we should think of sending them on to the more specialized center. If we send them back to the unit with a diagnosis of psychoneuroses, it is putting strikes against the men. If we consider that the man is not really ill enough to go to the 36th Station Hospital, then we ought to say that no disease has been found, but he is emotionally unstable. It therefore protects the man a bit and helps him to redouble his efforts. Then there is the question of putting these psychoneurotics on limited service type of duty which can be done, and we think they may be able to find some place where they could be fitted in. I know that it is a very difficult job, both in station and general hospitals, to find out just what to do with these people, but the direction is being set very definitely now to attempt to adjust them in the theater before sending them back to the Zone of Interior.

The rates of return to duty for the year 1943 are shown in table 11.

The increase in percentage during the first 7 months is a reflection of the policy to rehabilitate as many patients as possible for duty in this theater.

The decrease in percentage during the last 5 months is attributable, in part, to the accumulation of psychoses and other major mental disorders in the station and general hospitals, because evacuation of patients with such disorders to the 36th Station Hospital (NP) was curtailed. The rate of return to duty rose again in 1944 after the "neurosis hospital," the 312th Station Hospital, had finally been established.

Table 11 did not include rates from the 36th Station Hospital (NP). This hospital, which received only patients who could not be rehabilitated in other hospitals, was opened on 23 January 1943. Subsequent monthly rates of return to duty and to the Zone of Interior for nonpsychotic patients from this hospital, based on admissions per month through June 1943, were as follows:

TABLE 11.—*Percentage of psychiatric patients returned to duty from general and station hospitals in the European theater in 1943, by month*

Month	Psychiatric patients		
	Percent of total returned to duty	Percent returned to full duty	Percent (excluding psychotics) returned to duty
January	29	26	31
February	27	25	20
March	39	36	43
April	54	48	56
May	63	53	67
June	59	46	63
July	64	58	70
August	59	54	65
September	56	53	59
October	50	44	53
November	49	46	53
December	42	38	46
Average	50	44	53

Month	*Percent returned to duty*	*Percent returned to Zone of Interior*
February	0	0
March	14	38
April	48	20
May	10	5
June	67	22

Further details and statistics relating to the 36th Station Hospital (NP) appear in the section on special neuropsychiatric hospitals. The swing of the pendulum toward return to duty continued, which policy remained for the duration of the war throughout all echelons. This policy, officially stated in Administrative Memorandum No. 15, Office of the Chief Surgeon, dated 5 February 1944, read in part: "No officer or soldier will be evacuated to the Zone of the Interior who is physically (including mentally) able to serve usefully in any authorized military capacity in the European Theater of Operations."

Liaison Activities

Early in the development of the U.S. Army neuropsychiatric services, the assistance of the civilian British psychiatric consultants and that of the military psychiatrists of the British and Canadian Armies was most helpful. Visits to British hospitals, selection and training centers, disciplinary units. and other services revealed how the British neuropsychiatric program had

evolved, after 3 years of practical application. The War Office Selection Board was visited, and the 2-day program used in selecting officer candidates was observed. Emphasis in the British neuropsychiatric services had been focused on prevention, and its ramifications had gone far beyond hospital functions. A description of all the neuropsychiatric services in the British Army was sent to the Surgeon General's Office on 4 September 1942. This contained much information about rehabilitation of neuropsychiatric patients for some form of service.

Bimonthly meetings of the British Army command psychiatrists were attended regularly by Colonel Thompson who also became a member of the Services Sub-Committee of the War Cabinet's Expert Committee on the Work of Psychologists and Psychiatrists in the Services. Every 3 months, there was a joint meeting of the psychiatrists of all four British services and of the Canadian Army. These meetings were also attended by Colonel Thompson (fig. 26) ; later, other U.S. Army neuropsychiatrists were invited

FIGURE 26.—Meeting of consultants. Left to right: Col. Rex L. Diveley, MC, Senior Consultant in Orthopedic Surgery, European theater; Col. Lloyd J. Thompson, MC, Senior Consultant in Neuropsychiatry, European theater; and Brigadier George Brock Chisholm (a psychiatrist), Director-General of Medical Services, Canadian Army.

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to participate. These contacts led to the first meeting of the U.S. Army neuropsychiatrists, held at the Royal Society of Medicine, in London, on 14 December 1942. Invited guests were Brigadier John R. Rees, Consultant in Neuropsychiatry to the British Army, and Col. K. H. van Nostrand, Chief Consultant in Psychiatry, Royal Canadian Army Medical Corps. Close cooperation with these allies was maintained throughout the war.

Visit to North African Theater

Acknowledgment of credit for valuable assistance especially in planning is due the neighboring theater, then known as NATOUSA (North African Theater of Operations, U.S. Army). That theater had had 1½ years of combat before D-day in Europe. Reports on all phases of neuropsychiatric developments were received from Major Hanson, Consultant in Neuropsychiatry, NATOUSA. During November and December 1943, Colonel Thompson, in a tour of North Africa, Sicily, and Italy, visited units ranging from the general hospitals in North Africa to aid stations at the front in Italy. He observed the neuropsychiatric services in the British Eighth Army (with its corps exhaustion center) and in the Canadian 1st Division (with its division psychiatrist) under combat conditions. He also learned from the Surgeon, Fifth U.S. Army, of the plan for establishing a separate neuropsychiatric unit within Fifth U.S. Army at the evacuation hospital level. Recommendations applicable to the European theater, coming from this experience, were:

1. When this Theater is involved in general combat, the medical officers with the combat units should have the responsibility of recognizing, sorting and treating the neuropsychiatric casualties. Prevention, too, should fall in their province. In preparation for this, the courses in psychiatry now being given at the School of Neuropsychiatry for regimental surgeons and other medical officers of the division should be continued. Emphasis should be placed on the early recognition and treatment of the exhausted soldier with nervous symptoms, and the sorting of this type from the chronic neurotic, the psychopath, and the psychotic. The treatment, the method of evacuation, and the diagnostic terminology should be made explicit in a directive, but the indoctrination should include the formal courses as well as personal informal contacts whenever possible.

2. The talks by the psychiatrist to line officers of divisions should be continued. Emphasis should be placed on the importance of good leadership, the responsibility of the officer for the adequate protection of the soldier against exhaustion and the maintenance of good morale.

3. In accordance with the decision of The Surgeon General, every division in or coming into the E.T.O. should have a psychiatrist appointed at the earliest possible moment. The division psychiatrist should be chosen on the basis of personality, military experience and attitude, ability to go where the division may go, and psychiatric experience. The right type of medical officer with little or no specific training in psychiatry may be used. Training courses for division psychiatrists should be carried on in this Theater. The division psychiatrist should have the rank of a field officer. He should not be assigned to duties that interfere with psychiatric services. His principal and most valuable functions will be performed in the precombat period. During combat, facilities,

beds, and enlisted personnel should be available for psychiatric treatment in clearing stations. It is recognized that under certain combat conditions, especially where there is quick and extensive movement or a very broad front, the division psychiatrist may not be able to carry out adequate treatment in a clearing station and the evacuation hospitals will carry the load. Also, if the work of other medical officers at the front is adequate, the therapeutic services of the division psychiatrist will be diminished. Transportation should be available, so that the division psychiatrist can keep in close touch with medical officers and others of his unit. Since divisions have arrived and may continue to arrive in this Theater without psychiatrists, specially qualified medical officers of the divisions should be chosen and trained in this Theater.

4. Continue having a psychiatrist in each evacuation hospital. Training not only for the psychiatrist, but for two nurses and at least six enlisted men from each evacuation hospital should be carried on at the School for Neuropsychiatry.

5. At one or more of the special N.P. Hospitals a cadre of medical officers and enlisted personnel should be in training for functions in an advanced N.P. unit. When the demand comes with the establishment of a large beach head, such a unit (two hundred and fifty bed with possibly expansion to four hundred beds) should function at a level where there would be confluence of evacuation from evacuation hospitals. It is estimated that one such unit per Army would be sufficient. Very few patients would be reclaimed for front line duty from such a hospital, but many would be rehabilitated for service in line of supply without evacuation over a body of water to a base unit in England. This unit could go out as the 36th Station Hospital and its present installation could be covered by a detachment from the general hospital at Brickbarns [England].

6. Continue the three base N.P. hospitals in England as they are now functioning. N.P. patients evacuated from the front to this base should go directly (evacuation facilities permitting) to the appropriate N.P. unit. If these N.P. hospitals become filled to capacity, or transportation is impracticable, the N.P. sections of general hospitals at the base would receive N.P. evacuees from the front.

7. N.P. patients in evacuation hospitals who are ready to return to their units should go as directly and quickly as possible. Consideration should be given to the possibility of sending certain types of maladjusted soldiers to the Z.I. through administrative channels rather than medical channels, as is being done in NATOUSA. Every effort should be made to rehabilitate the "misfits" in this Theater, but if they must return to the Z.I. they occupy hospital beds there and expect a medical discharge if they are evacuated through medical channels.

Comparison With the AEF of World War I

The principal recommendations and accomplishments in the European theater neuropsychiatric services during the first 1½ years, in comparison with accomplishments in the American Expeditionary Forces of World War I, are shown in table 12.

Statistical Reporting Forms

Early in 1943, it was recognized that statistical reports of neuropsychiatric services should be submitted by all echelons, including frontline divisions, to the Office of the Chief Surgeon. With the cooperation of the Medical Records Division, Office of the Chief Surgeon, forms for neuropsy-

TABLE 12.—*Comparison of plans and accomplishments in neuropsychiatric services in the European theater, World War II, 1942–43, with those in the American Expeditionary Forces, World War I, 1917–18*

World War I	American Expeditionary Forces	World War II	European Theater of Operations, U.S. Army
1917		*1942*	
		August	Consultant in Neuropsychiatry arrived.
		September	Special NP hospital and NP wards in general hospitals recommended.
		October	Division psychiatrists recommended.
December	Director of psychiatry appointed.[1]		
1918		*1943*	
January	Plan for divisional neuropsychiatrist approved.	January	36th Station Hospital (NP) opened (350 beds).
February	Special NP ward at Base Hospital No. 66 opened; NP wards in other base hospitals opened; Base Hospital No. 117 (for war neuroses) recommended.	February	Expansion of 36th Station Hospital (NP) or establishment of a separate neurosis hospital recommended.
March	Base Hospital No. 117 (for war neuroses) opened.	March	Establishment of a neurosis hospital recommended.
		April	School of Military Neuropsychiatry opened.
May	Base Hospital No. 117 closed to new admissions.		
June	Base Hospital No. 117 reorganized; NP department at Base Hospital No. 8.		
July	Base Hospital No. 116 (for patients with psychoses) opened.	July	36th Station Hospital (NP) filled to capacity.
September	Base Hospital No. 117 planned to 2,000 beds; convalescent camp planned for 1,000 beds; hospital similar to No. 117 planned.	September	School of Military Neuropsychiatry closed.

[1] Dr. Thomas W. Salmon (later Colonel, Chief Psychiatrist, American Expeditionary Forces) was sent to England in June 1917 to study the British and French methods of dealing with the war neuroses. His report to The Surgeon General laid down concrete plans dealing with mental and nervous diseases in the U.S. Army, at home and abroad. This accounts for the rapid implementation of psychiatric programs soon after a director of psychiatry was appointed on 24 December. (The Medical Department of the United States Army in the World War. Neuropsychiatry. Washington: U.S. Government Printing Office, 1929, vol. X, p. 273.)

TABLE 12.—*Comparison of plans and accomplishments in neuropsychiatric services in the European theater, World War II, 1942–43, with those in the American Expeditionary Forces, World War I, 1917–18*—Continued

World War I	American Expeditionary Forces	World War II	European Theater of Operations, U.S. Army
November --	Construction on above plans underway.	November ---	Division psychiatrists established; some special NP wards in general hospitals ready.
		December ---	312th Station Hospital opened and School of Military Neuropsychiatry moved here; 96th General Hospital opened.

chiatric data were gradually introduced. One form was for the use of psychiatrists in the diagnosis and disposition of patients from hospitals. Another was designed to be used by both the medical officer and the individual's commanding officer on all soldiers referred for psychiatric consultation or treatment. A comprehensive, yet practical, checklist for division psychiatrists and others in forward areas was developed. These forms contained what appeared to be a wealth of information that could be tabulated in code for further study. Thousands of these reports were available in the Surgeon General's Office after the war was over, but no one made use of them subsequently.[13] However, data from the many forms coming through various channels to the Office of the Chief Surgeon, ETOUSA, during the war were of considerable value.

PERSONNEL

Number

On 11 November 1942, there were 23 psychiatrists in the theater assigned to neuropsychiatric work or attending school. By 9 May 1944, a month before D-day, the number had increased to 230. They were distributed as follows:

Source	*Psychiatrists*
General hospitals	103
Station hospitals	33
Neuropsychiatric hospitals (3)	24
Armies	46
Air Forces	10
Other neuropsychiatric posts	4
Not in neuropsychiatric work	3
Hospital commanders	6
Consultant	1
Total	230

[13] Note the fate of similar reports from the Mediterranean theater (p. 12).

Among those in general hospitals were 26 medical officers who were untrained in neuropsychiatry before entering active duty. Not all those listed under Air Forces functioned full time in neuropsychiatry.

On 1 May 1945, near the end of combat, the Personnel Division, Office of the Chief Surgeon, listed all medical officers with MOS (military occupational specialty) 3130 (NP), for a total of 516 names. Further study revealed that 78 officers were not in neuropsychiatric assignments, including two colonels who were commanding officers of hospital centers and three lieutenant colonels, commanding other medical units (not NP).

Distribution

Of the 438 medical officers definitely assigned to neuropsychiatric positions, the distribution by rank was as follows:

Rank	*Number*	*Percent*
Colonel	1	0.2
Lieutenant Colonel	21	4.8
Major	161	36.8
Captain	202	46.1
Lieutenant	53	12.1
Total	438	100.0

The distribution by specialty number rating was as follows:

Specialty	*Number*	*Percent*
Class I (A) 3130	1	0.2
Class II (B) 3130	108	24.7
Class III (C) 3130	169	38.6
Class IV (D) 3130	160	36.5
Total	438	100.0

(Only full-time chiefs or senior consultants were placed in Class I or A.)

Comparing these two tabulations, it will be seen that rank did not equal professional qualifications. There were 146 general hospitals in which the neuropsychiatry section should have been headed by a lieutenant colonel with a rating of B–3130.

Distribution according to service was as follows:

Service	*Number*	*Percent*
Army Service Forces	290	66.2
Army Ground Forces	144	32.9
Army Air Forces	4	.9
Total	438	100.0

Of the 438 neuropsychiatrists, 56 were Diplomates of the American Board of Neurology and Psychiatry, as follows: Certified in psychiatry and

neurology, 22; in psychiatry, 32; and in neurology, two. One hundred and fifty were members of the American Psychiatric Association, rated as Fellows, six; Members, 115; and Associate Members, 29.

On the basis of two psychiatrists in each general hospital and one for evacuation and station hospitals and divisions, it was estimated that there were almost 500 TO positions for psychiatrists in the theater. As previously indicated, a few positions had to be filled by medical officers who had not gained a military specialty rating for neuropsychiatry.

Assignment

The Personnel Division in the Chief Surgeon's Office was always most cooperative and helpful in locating "lost psychiatrists" and in expediting proper assignment. Also, Colonel Middleton, Chief Consultant in Medicine, maintained close supervision over personnel matters. Not infrequently, his arbitration in instances of conflicting interests assured the best use of all specialized personnel.

Personnel management problems called for considerable and continuous attention from the senior consultant in neuropsychiatry, the various army consultants in neuropsychiatry, and others. Early in the history of the theater, the complete listing of psychiatrists and their qualifications as established by the National Research Council was obtained through Col. Roy D. Halloran, MC, Chief, Neuropsychiatry Branch, Surgeon General's Office. This information, as well as that appearing on individual records when a psychiatrist was located in the theater, was of practical value. However, it was often through word of mouth, through letters, or during inspection tours that a psychiatrist was discovered. His record was supplemented by personal interview and observation of his work. Much of the difficulty in locating psychiatrists and arranging for proper assignment was experienced in late 1942 and during 1943.

Promotion

A personnel problem arose when psychiatrists were assigned on detached duty to units that had no TO position for such specialists. This happened not infrequently in services rendered replacement depots and disciplinary barracks and in the manning of "exhaustion centers" by psychiatrists withdrawn from evacuation hospitals. These men seemed to be lost by their parent organizations, especially in matters of promotion.

Promotion, always a delicate subject in all ranks and all units, was no exception in the specialty of neuropsychiatry. Except for hospital commanders and a few in administrative positions, it appeared that only the theater Senior Consultant in Neuropsychiatry could rank as a colonel. Even then, he was not on a par with his "opposite number" in the British Army.

(The same was true for the majority of consultants in other branches of medicine.) Toward the end of the war, it became possible to promote chiefs of neuropsychiatric services in general hospitals to the grade of lieutenant colonel, but this was not accomplished in all cases. In specialized neuropsychiatric hospitals and in army and division positions, a number of officers continued rather indefinitely in grades below their qualifications, experience, and caliber.

No doubt the same situation prevailed elsewhere in the Medical Corps, and perhaps throughout all branches of the armed services, but lack of promotion seemed to be more evident in the specialty of neuropsychiatry.

EDUCATION AND TRAINING

Supplemental education and training were important requirements because of the marked differences between the civilian practice of neuropsychiatry and the numerous facets of neuropsychiatry in an overseas combat military situation. Few medical officers arriving in the theater, assigned as neuropsychiatrists or otherwise, possessed much military neuropsychiatric experience or training. Such inexperience also extended to the ancillary personnel—nurses, medical corpsmen, and psychologists.

The important contribution of the British Army training center for neuropsychiatrists at Northfield has been referred to elsewhere (p. 194). When Colonel Thompson visited this school soon after his arrival in the theater in August 1942, it was quite evident that the U.S. Army should establish its own school of neuropsychiatry. The full importance of this decision to have a U.S. Army school was not realized at the moment, but it was recognized that only 16 officers could attend the Northfield school in a year, that the United States should not "sponge" on its overworked allies, and, further, that the U.S. Army had the resources for the expansion of such a school that would include ancillary services and field medical officers. (At that time, authorities were not aware that they would be charged with the responsibility of training division psychiatrists.)

School of Military Neuropsychiatry

When the first neuropsychiatric hospital, the 36th Station Hospital (NP), opened on 23 January 1943 at Exeter, plans were already formulated for the establishment of a school at the hospital. Schedules of courses were submitted to the Training Division, Office of the Chief Surgeon, and in February 1943, the school was officially established—the first in the theater for medical specialists.[14]

[14] (1) Memorandum, Lt. Col. Ernest H. Parsons, MC, Commanding Officer, 36th Station Hospital (NP), European Theater of Operations, U.S. Army, for the Senior Consultant in Psychiatry, Services of Supply, European Theater of Operations, U.S. Army, 23 Feb. 1943, subject: Training Programs. (2) Letter, Senior Consultant in Psychiatry, Office of the Chief Surgeon, European Theater of Operations, U.S. Army, to Col. J. C. Kimbrough, MC, Director of Professional Services, Office of the Chief Surgeon, European Theater of Operations, U.S. Army, subject: Training Schedules for Schools for Neuropsychiatric Personnel.

The original memorandum from the Office of the Senior Consultant in Neuropsychiatry, dated 25 January 1943, pertaining to the school and its functions, as suggested by the hospital commanding officer, Lt. Col. (later Col.) Ernest H. Parsons, MC, was as follows:

1. With the opening of the 36th Station Hospital (NP) for psychiatric services, the facilities and personnel for a school for psychiatrists are now available in this theater. Since July 1942, the British school at Northfield Military Hospital has been used—four U.S. Army medical officers being assigned each time for a course lasting 3 months. Although the British school is an excellent one and has rendered valuable service, it is believed that the course is too long and that, in general, it would be more satisfactory to have our own school.

2. It is not intended that such a school would train medical officers to become specialists. It would be a course of instruction for those who have had good fundamental training in psychiatry and the object would be to acquaint specialists in psychiatry with all the latest advances in military psychiatry. It is proposed that the course last approximately one month or 192 hours, and that 8 to 10 medical officers be assigned to each course. Such a plan should keep a steady supply of psychiatrists for various assignments as the demands increase. In other words, it would create a pool of psychiatrists who could remain on duty at the 36th Station Hospital until called to an assignment elsewhere. Additional billeting space will be necessary for the student officers.

3. Major (later Lt. Col.) Jackson [M.] Thomas, who is on duty at the 36th Station Hospital, is a well-qualified psychiatrist, a diplomate of the American Board of Neurology and Psychiatry and an associate in psychiatry, Harvard School of Medicine. In agreement with Colonel Ernest Parsons, MC, Commanding Officer, 36th Station Hospital (NP), it is proposed that Major Thomas be placed in charge of such a school. Others on the staff are well qualified to assist in teaching.

4. In this theater, there is a definite shortage of available nurses and enlisted men who have had adequate experience in dealing with psychiatric patients. Therefore, training for these positions in psychiatric services should be made part of the school. Details for this part of the program can be worked out later on.

Recommendations:

That a school for advanced training of psychiatrists in E.T.O. be established at the 36th Station Hospital (NP).

That Major Jackson Thomas be placed in charge of this school.

It was impossible to establish a pool of psychiatrists at the 36th Station Hospital (NP), but students were placed at the school on 30 days' temporary duty. The first course, in April 1943, trained 13 psychiatrists from general and evacuation hospitals. The purpose of this course was stated as follows:

1. To indoctrinate neuropsychiatrists in the policies and practices of the European Theater of Operations.

2. To familiarize neuropsychiatrists with the case types current in the European Theater of Operations.

In general, the procedure for instruction was explanation, demonstration, application, and examination. There were lectures, clinical conferences, and ward application under supervision of the clinical staff of the hospital. The master schedule for the course is shown in table 13.

A second course for psychiatrists was not given in May 1943 because the first 4-week course for nurses and for enlisted men was conducted during

that month. Ten nurses and ten enlisted men from the neuropsychiatric sections of other hospitals were enrolled. The master schedule for nurses is shown in table 14.

The monthly courses for nurses and enlisted men from fixed hospitals were given in May, June, and July 1943. Similar courses for nurses, resumed at the 36th Station Hospital (NP) in February 1944, were continued each month through June 1944.

TABLE 13.—*Training program, School of Military Neuropsychiatry, European Theater of Operations, U.S. Army*

Subject	Number of hours			
	1st week	2d week	3d week	4th week
Military Psychiatry (clinical study of patients in the wards; staff conferences; seminars)	45	42	41	41
Military Administrative Psychiatry (examination of prisoners; testimony before courts-martial)	0	1	1	1
Military Neurology	0	0	1	1
Special Examination Methods (pneumoencephalography; electroencephalography)	0	2	2	2
Psychometry and Psychological Methods	1	1	1	1
Examination (Oral)	1	1	1	1

TABLE 14.—*Training program, School of Neuropsychiatric Nursing, European Theater of Operations, U.S. Army*

Subject	Number of hours			
	1st week	2d week	3d week	4th week
Psychiatric Nursing	37	36	35	38
Clinical Psychiatry	7	7	6	4
Neurological Nursing	1	1	1	1
Ward Administration	0	2	2	2
Special Therapeutic Measures	2	1	1	0
Psychometry and Psychological Methods	0	0	2	2
Examination	1	1	1	1

For psychiatrists, however, the majority in the theater at the time attended courses given in April and July 1943. Later, it became increasingly difficult to persuade hospital commanders to give up their psychiatrists for 30 days upon arrival in the theater. This was anticipated by plans, made in April 1943, to give a short 1-week refresher course for medical officers, on duty with troops, who were not specifically trained in neuropsychiatry. Four courses were given during the month of June 1943, with a total attendance of 48. The detailed schedule for this course is shown in table 15.

TABLE 15.—*Training schedule of 1-week refresher course in neuropsychiatry for medical officers on duty with troops, 36th Station Hospital (NP), European Theater of Operations, U.S. Army*

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8–9 a.m	Orientation	Psychoses	Neuroses	Psychopathy	Neuropsychiatric patient on sick call.	Review.
9–10 a.m	Ward walk	Ward walk	Ward walk	Ward walk	Ward walk	Round table.
10–11 a.m	do	do	do	do	do	Inspection.
11 a.m.–12n	do	Clinical conference.	Clinical conference.	Clinical conference.	Clinical conference.	Clearances.
1–2 p.m	Disposition Board.	Case study, psychotic patient.	Disposition Board.	Case study, psychopathic patient.	Disposition Board.	Departure.
2–3 p.m	do	do	do	do	do	Do.
3–4 p.m	Case study, psychotic patient.	do	Case study, neurotic patient.	do	Case study, psychopathic patient.	Do.
4–5 p.m	do	Presentation of case to instructor.		Presentation of case to instructor.	do	Do.

These courses were very successful from the standpoint of the students as well as in the opinion of others concerned, and they formed the background for similar courses given later on. At the end of June, it was not possible to arrange a continuation of the instruction with Ground Forces medical officers, but in July 1943, two similar courses were given for flight surgeons of the Eighth Air Force.

During August 1943, the only training given was a 2-week course for hospital enlisted men.

Major Thomas, the director of the school, was recalled to the Zone of Interior at the end of August. His replacement, Maj. Howard D. Fabing, MC, although expected immediately, arrived 2 months later.

Before the arrival of Major Fabing, it was decided that the school should concentrate on services to combat units, with lectures to be given in the field to line officers. Colonel Parsons covered two divisions in 2 weeks. He lived with the troops, accompanied them on maneuvers, entered into line officers' activities, and held lecture and discussion sessions with the officers at night. After he left, Maj. (later Col.) William G. Srodes, MC, Consultant in Neuropsychiatry, First U.S. Army, continued this activity; later, when division neuropsychiatrists were available, they carried on similar programs.[15]

In cooperation with the Surgeon, V Corps, weekly courses for division and corps medical officers were resumed. By this time, the 36th Station Hospital (NP) was filled with psychotic patients; therefore, two additional hospitals were used. In one hospital were combat casualties from North Africa; in the other, psychiatric patients who had been "combed out" of divisions. The students were taken to all three hospitals in the 1-week course.

Captain Kelley, brought from the 30th General Hospital, conducted four courses, with a total attendance of 22 medical officers. With the arrival of Major Fabing and the opening of the 312th Station Hospital (NP), where a greater variety of clinical material was available, the School of Military Neuropsychiatry was moved to that hospital in December 1943 (fig. 27).

Psychiatrists from arriving general and station hospitals were trained more informally during assignment to the 36th Station Hospital (NP), for 7 days' temporary duty. Later, this function was also taken over by the 312th Station Hospital (NP) which, by September 1944, had indoctrinated 49 additional general and station hospital psychiatrists (fig. 28).

Weekly courses for medical officers from combat units, resumed on 3 January 1944, continued without interruption through the week ending on 15 July 1944. By that time, according to a report from the Division of Plans and Training, practically every medical officer in the First and Third U.S.

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[15] Memorandum, Senior Consultant in Psychiatry, Office of the Chief Surgeon, For Chief, Professional Services, Office of the Chief Surgeon, European Theater of Operations, U.S. Army, 4 Feb. 1944, and first indorsement to Executive Officer, Office of the Chief Surgeon, 8 Feb. 1944, subject: Psychiatric Lectures to Line Officers.

FIGURE 27.—Maj. Howard D. Fabing, MC, Director, School of Military Neuropsychiatry, ETOUSA, 312th Station Hospital.

Armies, who would come in contact with combat casualties, had attended the courses. In addition to the earlier courses at the 36th Station Hospital (NP), 768 medical officers of combat units were trained in what was called "first aid psychiatry."

Major Fabing, assisted by other key personnel, supervised the training at the 312th Station Hospital (NP). The general schedule was virtually the same as the original courses at the 36th Station Hospital (NP). A feature on the last afternoon of the course was a tent show, demonstrating the subject matter under conditions existing in an aid or clearing station (fig.

FIGURE 28.—Brigadier Robert D. Gillespie (left), Consultant in Psychiatry, Royal Air Force, and Col. Lloyd J. Thompson, MC (center), at School of Military Neuropsychiatry, ETOUSA, at demonstration of frontline neuropsychiatric treatment, 312th Station Hospital, England. (Others not identified.)

FIGURE 29.—Demonstration of neuropsychiatric treatment in tent show at 312th Station Hospital (NP). Maj. Howard D. Fabing, MC, is instructing, and Brigadier Gillespie is in foreground.

29). Enlisted men of the hospital were trained to act out the various syndromes seen in combat exhaustion. Procedures of admission, diagnosis, and treatment at the front were carried out realistically except for the actual administration of drugs. An 18-page mimeographed summary of the course was given to each student.

A course of equal importance, but for far fewer students, trained division neuropsychiatrists under the direction of Maj. (later Lt. Col.) Paul V. Lemkau, MC. He was assisted by Maj. Harry G. Rainey, MC, and Captain McGowan, both of whom had had considerable combat experience as division medical officers in the North African theater. Plans for the course were approved by the Chief Surgeon on 25 December 1943.

As already indicated, several divisions had arrived in the theater without neuropsychiatrists, and none were available in the theater or in the Zone of Interior. Accordingly, in cooperation with the Surgeon, First U.S. Army, medical officers were chosen to be trained for the position of division neuropsychiatrist (p. 197).

The training schedule provided for 192 hours of instruction in various subjects, as follows: Psychiatry, 120 hours (30 hours per week); psychology, 12 hours (3 hours per week); personnel selection, 36 hours (9 hours per week); combat neuroses, 20 hours (5 hours per week); and medical administration, 4 hours (1 hour per week).

Fifteen medical officers were trained in the first 2 months of 1944 for the position of division neuropsychiatrist. All were assigned immediately to such positions, except two who served as alternates or reserves. The majority were with divisions that participated in the invasion of Normandy and served with distinction throughout the rest of the war.

Other courses, each lasting 2 weeks, were given for the psychiatrist, two psychiatric nurses, and six enlisted men from every evacuation hospital that was present in the theater before D-day. Most of the psychiatrists later served in exhaustion centers. Included in these courses were several enlisted men from division and corps clearing companies, who formed a nucleus of trained personnel for the division neuropsychiatrist.[16]

During the summer of 1944, a training film entitled "Combat Exhaustion" was produced at the 312th Station Hospital (NP). The film, which ran approximately 45 minutes, was a reproduction of the contents of the course given to Ground Forces medical officers. Parts in the film were acted by officers and enlisted men of the hospital staff. The film was distributed to each army consultant in neuropsychiatry, each neuropsychiatric hospital, and all film libraries. It was used extensively in further training in neuropsychiatry, supplanting the courses at the School of Military Neuropsychiatry.

Other Training

Some other educational activities were carried on outside the School of Military Neuropsychiatry. During 1943 and 1944, the Medical Field Service School at the American School Center, Shrivenham Barracks, ran 2-week courses continuously for all medical officers in the theater. In each course, 2 hours were devoted to the discussion of "frontline neuropsychiatry." Most of these lectures were given by Colonel Thompson. At the same school, courses for nurses included instruction in neuropsychiatry.

During most of 1943, the Eighth Air Force conducted courses for flight surgeons. Several hours in each course were devoted to discussion of neuropsychiatric subjects by Major Hastings and, later, by Capt. (later Maj.) Douglas D. Bond, MC.

Each month from late in 1942 until June 1945, an Inter-Allied Conference on War Medicine was held at the headquarters of the Royal Society of Medicine in London, with many U.S. Army medical officers attending. On four occasions, ½-day meetings were devoted to neuropsychiatric subjects, with participation by U.S. Army psychiatrists.[17]

Before V–E Day, plans were made to provide courses of instruction for as many medical officers as possible during the period of redeployment. It was hoped that the School of Military Neuropsychiatry would be reestablished at one or more of the special neuropsychiatric hospitals. By V–E Day, however, because there was a much larger accumulation of psychiatric

[16] Memorandum, Senior Consultant in Psychiatry, Office of the Chief Surgeon, for Chief, Professional Services, Office of the Chief Surgeon, European Theater of Operations, U.S. Army, 2 Feb. 1944, subject: Psychiatric Training for Enlisted Men in Clearing Company of 1st Army.

[17] The following professional papers were presented by Col. Lloyd J. Thompson, at the Inter-Allied conferences: (1) Neuroses on Active Service, 5 April 1943; (2) Operational Strain (Psychological Casualties in the Field), 7 February 1944; (3) The Management of Combat Exhaustion in the Army, 4 December 1944; and (4) German Concentration Camps, 4 June 1945.

patients at the 191st General Hospital, which had become a center for psychiatric patients in Paris, a school was established there. Maj. Roy L. Swank, MC, was in charge of the neuropsychiatric section, and Lt. Col. Lewis H. Loeser, MC, was brought over from the 312th Station Hospital (NP) to supervise instruction.

It was believed that the psychiatrists who had been at the front with Ground Forces should have first consideration for training. Accordingly, the course at the 191st General Hospital was limited to such men, but with the inclusion of young psychiatrists who were graduates of the School of Military Neuropsychiatry in the Zone of Interior. Enrollment was limited to 25. The first course began on 25 June 1945 and ended on 21 July 1945. A second course was given in August 1945. These 4-week courses gave a comprehensive review of neurology and psychiatry and surveyed recent developments in general medicine.

For more experienced psychiatrists, refresher courses were arranged in England through the courtesy of British neuropsychiatric teaching centers. These courses began on 30 July 1945 and extended through 25 August 1945. The National Hospital, Queen Square, London, offered training in neurology for six medical officers. Civilian psychiatric hospitals in London gave training in psychiatry for six medical officers, and the Military Psychiatric Hospital at Northfield had place for four. Redeployment was so rapid that many last minute changes were necessary, and it was not possible to continue this arrangement after the first courses were completed. The helpful cooperation of British neuropsychiatrists was greatly appreciated.

The first official meeting of the U.S. Army neuropsychiatrists was held on 13 February 1943 at the headquarters of the Royal Society of Medicine in London. The program follows.

AGENDA FOR MEETING OF NEUROPSYCHIATRISTS

13 February 1943

10:30 a.m.	Lt. Col. Lloyd J. Thompson, MC "General Review and Plans for the Future"
10:50 a.m.	Lt. Col. Ernest H. Parsons, MC "Functions of #36 Station Hospital"
11:20 a.m.	Maj. R. J. Masselink, MC "Problems of Disposition"
11:50 a.m.	Maj. Moses M. Frohlich, MC "Facilities needed in General and Station Hospitals"
12:10 p.m.	Maj. Roy L. Swank, MC "Neurological Problems"
12:30 p.m. to 2:00 p.m.	LUNCH
2:00 p.m.	Maj. Jackson M. Thomas, MC "Proposed School for Neuropsychiatry"
2:20 p.m.	Capt. Donald W. Hastings, MC "Aviation Psychiatry"

2:50 p.m.	1st Lt. Douglas McG. Kelley, MC "Psychological Testing in ETO"
3:10 p.m.	Capt. Frederick R. Hanson, MC "Services Forward of Fixed Hospitals"
3:30 p.m.	Discussion by Lt. Col. Wm. S. Middleton, MC Brigadier John R. Rees, RAMC, and Col. K. H. van Nostrand, RCAMC.

Subsequently, other meetings were held in the various base sections. Of special note was the conference, called for 6 June 1944, for chiefs of neuropsychiatry of the hospitals in the Western Base Section. No one present knew that it was to be D-day, but as the first arrivals came in for registration, news of the invasion was being received by radio.

A similar program was arranged for the psychiatrists of the Southern Base Section. This meeting was held on 9 June 1944, with 40 in attendance. After this, with the rapid movement of many medical units to the Continent, it was no longer possible to hold conferences for any large group of psychiatrists.

Of considerable educational value were the numerous papers written by neuropsychiatrists in the European theater. Some of these were published [18] in the theater through various channels, and even the unpublished ones benefited the immediate unit and sometimes nearby units.

[18] Published articles are listed in (1) Roos, Charles (comp.). Bibliography of Military Psychiatry, 1947–1952. Washington, 1953; and (2) Roos, Charles, and Barry, Jeanette (comp.). Bibliography of Military Psychiatry, 1952–1958. Washington, 1959.

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CHAPTER VIII

Hospitals and Treatment

Lloyd J. Thompson, M.D.

Section I. Neuropsychiatric Hospitals

During 1942, general and station hospitals with assistance from British military hospitals supplied all the needs for inpatient and outpatient care of U.S. psychiatric patients. To keep neuropsychiatry intimately related to and a part of general medicine, and also of surgery, was considered very important and in keeping with the prevailing trend in civilian and military medical practice. It was believed that a strong neuropsychiatric section, with outpatient and consultation services, was necessary in the general hospitals. For station hospitals, which were earlier in the chain of service and closer to the troops, the same plan was advocated.

Steps to establish entirely separate hospital units for neuropsychiatry were taken with some reluctance and caution, regardless of the Army's experience in World War I and of the experience of the RAMC (Royal Army Medical Corps) in World War II; but since U.S. Army planned hospital installations had only improvised facilities for psychotic patients, it was evident that specialized psychiatric units would be necessary.

Subsequent developments revealed that for nonpsychotic patients there were many advantages in a separate "mental rehabilitation" unit. In a "neurosis" hospital, where there is little contact with physically sick or wounded soldiers, an atmosphere of recovery and return to duty could be created and maintained for patients from admission to final disposition. The special neuropsychiatric units tended to acquire undesirable popular nicknames, but this was never a serious handicap. Although the general and station hospitals carried out the same techniques of treatment and rehabilitation, a total return-to-duty atmosphere could never be captured. Few of the general hospitals approached the return-to-duty rate of the special neuropsychiatric hospitals, which usually received only those patients whom the general hospitals had been unable to return to duty. The special neuropsychiatric hospitals were large enough to include medical, surgical, X-ray, laboratory, and dental services, equal to those found in many other hospitals.

36TH STATION HOSPITAL (NP)

Because of the need for a "holding place" for psychotic patients, the Hospitalization Division, Office of the Chief Surgeon, started negotiations

early in September 1942 to procure a 400-bed mental institution on the outskirts of the city of Exeter, in Devonshire, England. This hospital, built in 1885, was the Exeter Asylum. It was built on traditional asylum plans and contained 10 well-constructed "padded cells." During the preceding 3 years of war, few repairs or improvements had been made. Negotiations for the hospital were complicated and involved the problem of transferring the civilian patients to other institutions. It was not until early in December 1942 that Lt. Col. (later Col.) Lloyd J. Thompson, MC, Senior Consultant in Neuropsychiatry, was permitted to visit the hospital. In the meantime, architectural plans were prepared for the alterations of one section to provide an operating-room suite, a dental clinic, X-ray rooms, and laboratories.

On 23 December 1942, pending the arrival of a special neuropsychiatric unit from the United States, the personnel and equipment of the 110th Station Hospital were moved into the hospital at Exeter, to prepare for admission of U.S. Army patients. In the following month, many of the necessary building repairs and alterations were completed.

The 36th Station Hospital, the special neuropsychiatric unit, debarked in Liverpool on 13 January 1943. After a brief period of staging, the unit replaced the 110th Station Hospital. On 23 January 1943, the first patients were received (figs. 30 and 31).

FIGURE 30.—36th Station Hospital (NP) opened by the U.S. Army in renovated buildings of an old asylum in Exeter, Devonshire, England.

FIGURE 31.—Ward in 36th Station Hospital (NP).

The 36th Station Hospital (NP) was under the command of Lt. Col. (later Col.) Ernest H. Parsons, MC, a Regular Army neuropsychiatrist. Among its medical staff were eight well-qualified psychiatrists. The chief of the neuropsychiatric service, Maj. (later Lt. Col.) Lewis H. Loeser, MC, was exceptionally well qualified in both neurology and psychiatry. All the nurses and wardmen had had previous experience with psychiatric patients. During 5 months of staging at Camp Rucker, Ala., the unit had become coordinated and fully prepared to function efficiently with the admission of the first patient.

This unit was organized on the TOE (table of organization and equipment) of a 250-bed station hospital and could not exceed total allotments at any time. Therefore, medical, surgical, dental, X-ray, and laboratory personnel were restricted to a minimum, to allow for sufficient psychiatric personnel. Additionally, the hospital was also required to render a small amount of routine station hospital services for nearby military units. Although the hospital quickly expanded to 350 beds, its table of organization and equipment could not be changed to provide the additional personnel, supplies, and equipment required for the increased patient load.

Difficulties that arose out of the use of a 250-bed station hospital were pointed out by the commanding officer in a memorandum dated 23 March 1943, as follows:

1. The 36th Station Hospital (N.P.) is a specialized hospital not functioning as a station hospital but receiving difficult and long term cases from station and general hospitals. Evacuation is by return to some form of duty or return to the Z.I. and not to other hospitals.

2. The medical and nursing personnel consists of specialists and many of the medical officers are diplomates of the American Board of Neurology and Psychiatry. This is mentioned in order to illustrate the special requirements of this hospital. In the existing T/O, except for the Commanding Officer and the two chiefs of service, the psychiatrists must be limited to grades of Captain (3) and 1st Lieutenants (4). Some of the latter will be used as instructors in the neuropsychiatric school.

3. Supplies and equipment for a two hundred and fifty (250) bed station hospital will not meet the situation. Certain equipment for a station hospital is not necessary and is returned, but other special equipment, for example, proper X-ray apparatus, is not available under the two hundred and fifty (250) bed station hospital status. Also, there is a tendency to apply station hospital policies, practices and channels of action to this special hospital although it is on an exempted status.

Since no table of organization and equipment was authorized for a specialized neuropsychiatric hospital, one was prepared by Colonel Parsons and sent to the Office of the Chief Surgeon for approval. From there, it was sent to the War Department, where it was eventually approved and issued on 26 October 1943 as TOE 8–550S.

So rapid was the employment of the 36th Station Hospital (NP) that the original directive (Circular Letter No. 20), announcing its opening and functions, was not issued until 29 January 1943,[1] 6 days after the first patient had been admitted. Also on 29 January 1943, a more comprehensive directive was submitted; this was eventually issued on 28 April 1943, as Circular Letter No. 67.

Circular Letter No. 67 pointed out that the 36th Station Hospital (NP) received psychiatric patients only after other hospitals had been unable to return them to duty after a reasonable period of treatment. At first, most of the patients admitted had psychoses, or were otherwise so seriously incapacitated by mental disorders that return to duty was not considered. Nevertheless, while they waited for ship transportation, these patients were not denied the advantage of early and continuous treatment, even though they were destined for evacuation to the Zone of Interior. There was also the advantage of having them in better condition for the voyage on a hospital ship. For patients returning to the Zone of Interior, the time from admission until "boarding" averaged 2 weeks. All recognized methods of treatment, including electroshock therapy, were used as soon as possible.

To standardize policy for evacuation to the Zone of Interior, the Office of the Chief Surgeon decided, in March 1943, to send all psychiatric patients who were no longer considered serviceable in the theater to the specialized 36th Station Hospital, to appear before a disposition board. This system functioned satisfactorily during March, April, and May 1943,

[1] Circular Letter No. 20, Office of the Chief Surgeon, Headquarters, European Theater of Operations, U.S. Army, 29 Jan. 1943.

but the increasing troop strength resulted in a backlog of patients being held in general hospitals. In August 1943, the policy was, of necessity, abandoned, and "boarding" of psychiatric patients to the Zone of Interior was resumed by general hospitals.

The organization of the 36th Station Hospital (NP) consisted of an admission service, treatment service, and rehabilitation service. Patients progressed through these services, going from closed to open wards and on to the rehabilitation service if possible. From the beginning, patients were classified and separated for treatment according to the nature and severity of the mental disorder.

Establishment of Training Company

Within a short time, a "training company" unit was organized, principally for improved nonpsychotic patients. The first training company, activated on 13 March 1943, was organized on a strictly military basis, with patients of appropriate rank serving as officers and noncommissioned officers. An Air Forces captain was its first commanding officer. Quarters were arranged and operated as barracks. The daily schedule included reveille, setting-up exercises, drill, military training, athletics, and assignment on work detail. There was a variety of work assignments, such as repair of buildings and roads and erection of garage and post exchange buildings. Occupational therapy was concerned with constructive activities that improved the installation. Reconstruction of the section containing the operating room, laboratories, and the like was accomplished almost entirely by hospital personnel and patients. Group discussions and information and education activities were included in the program.

Without too much difficulty, an atmosphere of "back to duty" was created. The results were soon evident in the hospital statistics with a return-to-duty rate of over 50 percent for nonpsychotic patients. It was recognized that the training company could function with a more elaborate program if separated from the hospital building and its illness atmosphere. Such a move was recommended in February 1943, and received the support of the Chief Surgeon.[2]

Need for Expansion

In a meeting of the Chief Surgeon's Consultants Committee, on 5 March 1943, Brig. Gen. (later Maj. Gen.) Paul R. Hawley, the Chief Surgeon, expressed the opinion that there would be real need for added neuropsychiatric facilities and that neuropsychiatric patients must be given

[2] Letter, Lt. Col. L. J. Thompson, MC, to Col. J. C. Kimbrough, MC, Director of Professional Services, Office of the Chief Surgeon, European Theater of Operations, U.S. Army, 14 Feb. 1943, subject: Estimate of Needs for Hospitalization of Neuropsychiatric Disabilities in the ETO.

adequate care. Later, in April 1943, Colonel Thompson submitted a letter, enumerating more specifically the needs for neuropsychiatric beds.[3]

This letter was implemented by another,[4] dated 19 July 1943, from Colonel Thompson to Col. James C. Kimbrough, MC, Director of Professional Services, recommending the enlargement of the 36th Station Hospital (NP) to 350 beds and the establishment of a 750-bed "neurosis" hospital.

In mid-October 1943,[5] Colonel Parsons submitted a memorandum to Col. William S. Middleton, MC, Chief Consultant in Medicine, stressing the need for 4,000 neuropsychiatric beds in the theater, and calling attention again to the overcrowding and hampered operation of the one existing special neuropsychiatric hospital (36th Station Hospital) and to the temporary emergency use of the 110th Station Hospital. Finally, in November 1943, the 750-bed station hospital installation at Shugborough Park, between Lichfield and Stafford, Staffordshire, became available, and the 312th Station Hospital unit was designated to occupy it as a neuropsychiatric facility. On 24 October 1943, Colonel Thompson, in a memorandum to the Chief of Medical Service, had recommended that the Shugborough Park site be selected. He emphasized that the 100 acres of ground in this hospital area were ideal for all rehabilitation programs.

By June 1943, even before these recommendations, the neuropsychiatric wards of the 36th Station Hospital (NP) were filled to capacity, and admissions were not possible for several weeks. For the remainder of the year, there was a waiting list, and admissions were allocated to base sections according to hospital strength. Psychotic and troublesome patients were given priority of admission, a procedure which gradually crowded out the patients who might have been returned to duty.

It became evident that a larger hospital would be needed to cope with the serious conditions that were filling the 36th Station Hospital (NP). The consensus was that the neuropsychiatric sections of general hospitals should not be burdened with holding the severely ill, but should have space and time for patients who might be returned to duty. Moreover, because of the uncertain availability of hospital ships and their lack of space for neuropsychiatric patients, a larger "holding" hospital was necessary. Without much delay, a general hospital installation near Malvern was obtained. Further details will be found in the description of the 96th General Hospital (NP).

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[3] Letter, Lt. Col. L. J. Thompson, MC, to Col. J. C. Kimbrough, MC, Director of Professional Services, Office of the Chief Surgeon, European Theater of Operations, U.S. Army, 30 Apr. 1943, subject: Future Needs for Hospitalization of Neuropsychiatric Patients.

[4] Letter, Col. Lloyd J. Thompson, MC, Senior Consultant in Psychiatry, to Col. J. C. Kimbrough, Director of Professional Services, Headquarters, Services of Supply, European Theater of Operations, U.S. Army, 19 July 1943, subject: Hospitalization of Neuropsychiatric Patients.

[5] Memorandum, Lt. Col. T. H. Parsons, MC, Commanding Officer, 36th Station Hospital (NP), to Col. W. S. Middleton, MC, Chief Consultant in Medicine, European Theater of Operations, U.S. Army, 16 Oct. 1943.

The preceding events make it abundantly clear that the 36th Station Hospital (NP) was definitely overburdened until the other neuropsychiatric hospitals were opened late in 1943. It was the pioneer neuropsychiatric unit for the theater. The School of Military Neuropsychiatry was opened here, in April 1943 and continued until moved to the 312th Station Hospital (NP) in December 1943. Even after the transfer of the school, various informal courses were given by the 36th, and many of its visitors carried back to other hospitals new treatment concepts and procedures.

Statistical data.—Tables 16 and 17 contain information on admissions and dispositions for the 36th Station Hospital (NP) from the time of its opening, in January 1943, until it was closed as a neuropsychiatric unit, at the end of July 1944. The total capacity never exceeded 350 beds. Through June 1943, 56 percent of the dispositions of nonpsychotic patients were to duty in the European theater; after that date, the rate was consistently lower.

Conversion to regular station hospital.—The 36th Station Hospital (NP) continued its specialized function until 1 August 1944. However, after the opening of the 96th General Hospital (NP) in January 1944, the function of the 36th Station Hospital (NP) was restricted to receiving only psychotic and other unreclaimable psychiatric patients from hospitals in southern England. On 1 August 1944, practically all the specialized personnel were moved to the 312th Station Hospital to replace personnel of that hospital, who were being moved to form a new neuropsychiatric unit. The 36th Station Hospital (no longer a neuropsychiatric unit) then became a regular station hospital at a different location. The installation in which it had been housed (Exeter Asylum) was returned to the British.

312TH STATION HOSPITAL (NP)

Organization

As stated earlier, the 312th Station Hospital (NP), the second neuropsychiatric unit, was the outgrowth of the demonstrated need for and the recognized advantages of a large separate rehabilitation unit for nonpsychotic mental disorders. Conversion of the 312th Station Hospital into a neuropsychiatric unit necessitated considerable change in personnel, involving medical officers, nurses, and enlisted men. Key personnel from the 36th Station Hospital (NP) were selected and began to arrive on 17 November 1943. A few psychiatrists were taken from other units to fill the staffs of both hospitals. The commanding officer of the 36th Station Hospital (NP), Colonel Parsons, took command of the 312th Station Hospital (NP). The chief of the neuropsychiatric service of the 36th Station Hospital (NP), Colonel Loeser, was made its commanding officer (fig. 32). Thus, a new neuropsychiatric unit was manned without bringing in additional psychiatrists from the Zone of Interior.

TABLE 16.—*Monthly report of admissions and dispositions, 36th Station Hospital (NP), during 1943*

Admissions and dispositions	January	February	March	April	May	June	July	August	September	October	November	December	Total 1943
Admissions:													
Total neuropsychiatric	59	92	102	74	163	114	107	196	165	117	116	209	1,514
Psychotic	51	47	38	14	32	24	24	66	61	44	42	78	521
Nonpsychotic	8	45	64	60	131	90	83	130	104	73	74	131	993
Total injury and disease	2	9	8	5	23	19	22	14	29	36	62	63	292
Dispositions:													
Total neuropsychiatric			83	43	72	92	211	95	179	165	161	149	1,250
Total psychotic			48		43		98	27	55	38	70	55	434
To Zone of Interior			48		43		98	27	55	36	70	54	431
To duty in European theater										2		1	3
Total nonpsychotic			35	43	29	92	113	68	124	127	91	94	816
To Zone of Interior			24	12	6	20	48	32	89	96	67	80	474
To duty in European theater			9	29	14	60	36	28	32	26	20	13	267
Transfers to general hospitals in European theater			2	2	9	12	29	8	3	5	4	1	75
Total injury and disease		7	9	6	20	18	23	14	26	34	49	70	276
Neuropsychiatric deaths			1		2		1	2		1			7
Population at close of period	61	155	172	202	294	317	211	310	299	252	220	273	
Last register number	61	162	272	351	537	670	799	1,009	1,203	1,356	1,534	1,806	

Source: Annual Report, 36th Station Hospital, 1943.

TABLE 17.—*Monthly report of admissions and dispositions, 36th Station Hospital (NP), January–July 1944*

Admissions and dispositions	January	February	March	April	May	June	July	January–July 1944
Admissions:								
Total neuropsychiatric	125	124	202	119	214	187	151	1,122
Psychotic	38	64	78	60	79	51	58	428
Nonpsychotic	87	60	124	59	135	136	93	694
Total injury and disease	67	46	43	29	33	10	13	241
Dispositions:								
Total neuropsychiatric	190	182	64	246	160	170	166	1,178
Total psychotic	82	66	24	93	70	71	59	465
To Zone of Interior	82	65	24	93	70	44	57	435
To duty and general hospitals in European theater		1				27	2	30
Total nonpsychotic	108	116	40	153	90	99	107	713
To Zone of Interior	81	95	27	129	63	41	57	493
To duty in European theater	20	18	13	24	26	42	49	192
To general hospitals in European theater	7	3			1	16	1	28
Total injury and disease	64	42	49	31	37	14	14	251
Neuropsychiatric deaths								
Population at close of period	211	157	289	160	210	223	207	
Last register number	1,998	2,168	2,413	2,561	2,808	3,005	3,169	

Source: Annual Report, 36th Station Hospital, 1944.

In converting the 312th to serve as a neuropsychiatric unit, few alterations were made, and no closed-ward facilities were needed. Admission and treatment wards occupied what would have been the surgical part of the hospital. The long row of wards designed for the medical service became the "training wing." In general, the same arrangements and methods of functioning that had been in use at the 36th Station Hospital (NP) were employed. The original directive pertaining to the 312th Station Hospital (NP) provided that it receive nonpsychotic and treatable patients but only from other hospitals after such hospitals had been unable to return the patients to duty. The first patients were admitted on 3 December 1943.

The alteration of a regular station hospital organization to one suitable for a neuropsychiatric unit was not difficult. The 750-bed station hospital table of organization was large enough to allow for small but efficient surgical, medical, and other services found in a general hospital. The 312th Station Hospital (NP), like the 36th Station Hospital (NP), also rendered a small amount of routine station hospital service. This served to keep all branches of medicine represented and obviated the disadvantages found in some isolated civilian mental hospitals.

FIGURE 32.—Lt. Col. Lewis H. Loeser, MC, Commanding Officer, 36th Station Hospital (NP), and later, Commanding Officer, 312th Station Hospital (NP), in his office at the former hospital.

Operations

On the admission wards, a complete study of the patient was carried out regardless of records from other hospitals, except that X-rays and special laboratory procedures were not repeated routinely. The initial study occupied from 2 to 4 days; then, most patients were moved to the treatment section where combinations of sleep therapy and modified insulin therapy were given almost routinely. Electroshock therapy and narcosynthesis were employed when indicated.

Practically all patients were included in group psychotherapy and physiotherapy, and information and education periods were routine. At the end of 10 days to 2 weeks, some patients were sent to special treatment wards for Pentothal Sodium (thiopental sodium) therapy, individual psychotherapy, or other special attention, but most of the patients were transferred to the training wing, away from direct medical supervision and a hospital atmosphere. In the training wing, the wards with double-decked bunks were maintained as barracks. Thus, patients were returned to military camp life even to the extent of having rifle practice on a range. A definite 10-day program was established. Approximately half the time was spent in orientation, indoctrination, and military training, with the re-

mainder devoted to physical reconditioning. Line officers who had been wounded and decorated in combat assisted in the rehabilitation program.

Training

The School of Military Neuropsychiatry became an integral part of the 312th Station Hospital (NP), in December 1943, and carried a heavy schedule of instruction until after D-day (6 June 1944). Most psychiatrists coming into the theater with other hospitals either visited or served on temporary duty at the 312th Station Hospital (NP), thus learning the accepted neuropsychiatric policies and procedures of the theater.

An advantage to this hospital was that psychotic patients (not infrequently admitted because of a questionable condition) and all seriously ill patients who showed no evidence of improvement could be sent at any time to the 36th Station Hospital (NP), or the 96th General Hospital (NP). This helped to maintain an atmosphere charged with a back-to-duty attitude.

Statistical Data

During many months, the return-to-duty rate was approximately 80 percent. At other times, owing to long delays before admission or to other unfavorable conditions, the return-to-duty rate was much less. It was demonstrated, however, that a neuropsychiatric unit under moderately favorable conditions, even functioning as a rear echelon of treatment in a combat theater, could return four out of five psychiatric casualties to duty.

A followup study on 500 patients (mostly combat cases), returned to duty during August 1944, showed that 7 months later (1 April 1945) 80 percent were on duty in the theater. What had happened to the 20 percent that were lost could not be determined accurately: some may have been evacuated to the Zone of Interior because of other illnesses or injuries, and probably a small number had been killed in action. During its existence, this hospital returned to duty approximately 9,000 men—more than half a division.

Most psychiatric patients were returned to duty in limited-assignment noncombat status. At the 10th Reinforcement Depot, which received duty patients from the 312th Station Hospital (NP), only 20 percent of the psychiatric patients were given full-duty status during the period from August 1944 through February 1945. During one month (July 1944), the rate of return to full combat duty from the 312th Station Hospital (NP) was 33 percent. It is of interest that for the week ending on 12 January 1945, at the 19th Reinforcement Depot in France, 32 percent of the psychiatric patients were fit for general assignment, while in the United Kingdom only 3 percent were so classified. Some general criteria on which to base a decision regarding return to full duty, adopted at the 312th Station Hospital (NP), were as follows:

1. No previous nervous or mental breakdowns.
2. Combat experience of 7 or more days. Those who broke down in less than one week usually showed other evidence of instability.
3. Combat in less than three campaigns. Soldiers who had been through three campaigns were likely to have been "used up."
4. Intelligence of more than 10 years' mental age. Other factors had to be taken into account with mental age.
5. Alleviation of symptoms.

Another advantage of the 312th Station Hospital (NP) was its location within 10 miles of the 10th Reinforcement Depot. The commanding officers of the neuropsychiatric hospital and the reinforcement depot could discuss mutual problems and maintain close liaison. Additional information on this collaboration is contained in chapter XI.

Disposition statistics for the 18-month period, January 1944–June 1945, are shown in table 18. Early in 1945, a high rate of return to duty was accomplished regardless of fairly long periods of prior hospitalization before admission to this unit. For example, in January 1945, the average hospitalization time before admission was 35.33 days; in February 1945, it was 36.96 days.

An interesting study by the commanding officer considered the length of time in active combat for patients who were in the hospital on 8 March 1945. (Return-to-duty rate during March 1945 was 85 percent.) A random sampling of 200 of the 811 psychiatric patients in the hospital on 8 March revealed that—

1. 11.5 percent of the patients had had no actual combat.
2. 27.5 percent had had 30 days or less.
3. 15.0 percent had had 31 to 60 days and 42.5 percent had had 60 days or less.
4. 8.0 percent had had 61 to 90 days and 50.5 percent had had 90 days or less.
5. 12.0 percent had had 91 to 120 days and 62.5 percent had had 120 days or less.
6. 10.0 percent had had 121 to 150 days and 72.5 percent had had 150 days or less.
7. 9.5 percent had had 151 to 180 days and 82.0 percent had had 180 days or less.
8. 3.5 percent had had 181 to 210 days and 85.5 percent had had 210 days or less.
9. 3.0 percent had had over 210 days of actual combat.
10. The mean (average) number of days of actual combat for 171 patients with combat between 1 and 210 days was 76.5 days. (Active combat means frontline fighting. It does not include duty behind the lines under shelling and strafing. Rest periods were not counted in the total number of days.)

TABLE 18.—*Disposition of psychiatric patients from the 312th Station Hospital (NP), by month, 1944–45*

Year and month	Total	Duty		Zone of Interior		Other hospitals		Confinement		Absent without leave		Death	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1944													
January	188	110	58.5	77	41.0	0	0.0	0	0.0	1	0.5	0	0.0
February	311	105	33.8	204	65.6	0	-------	0	-------	2	.6	0	-------
March	480	232	48.3	248	51.7	0	-------	0	-------	0	-------	0	-------
April	538	281	52.2	254	47.2	3	0.6	0	-------	0	-------	0	-------
May	606	427	70.5	168	27.7	10	1.7	0	-------	1	0.2	0	-------
June	612	487	79.6	110	18.0	12	2.0	1	0.2	2	.3	0	-------
July	574	469	81.7	97	16.9	8	1.4	0	-------	0	-------	0	-------
August	645	583	90.4	55	8.5	6	.9	0	-------	1	0.2	0	-------
September	628	561	89.3	59	9.4	2	.3	2	0.3	4	.6	0	-------
October	685	480	70.1	195	28.5	9	1.3	1	.2	0	-------	0	-------
November	620	406	65.5	209	33.7	3	.5	0	-------	1	0.2	1	0.2
December	780	569	73.0	201	25.8	9	1.2	0	-------	0	-------	1	.1
Total	6,667	4,710	70.7	1,877	28.2	62	0.9	4	0.1	12	0.2	2	[1] 0.0
1945													
January	902	754	83.6	144	16.0	3	0.3	1	0.1	0	-------	0	-------
February	857	707	82.5	148	17.3	1	.1	1	.1	0	-------	0	-------
March	830	708	85.3	122	14.7	0	-------	0	-------	0	-------	0	-------
April	475	266	56.0	192	40.4	17	3.6	0	-------	0	-------	0	-------
May	184	15	8.2	162	88.1	7	3.8	0	-------	0	-------	0	-------
June	111	5	4.5	97	87.4	9	8.1	0	-------	0	-------	0	-------
Total	3,359	2,455	73.1	865	25.8	37	1.1	2	0.1	0	-------	0	-------

[1] Indicates a rate of less than 0.05.

Source: Data for 1944 are from "Annual Report, 312th Station Hospital (NP), 1944, Exhibit F"; for 1945, compiled by the Senior Consultant in Neuropsychiatry, ETOUSA.

The 312th Station Hospital (NP) did not evacuate patients directly to the Zone of Interior, but transferred them to other neuropsychiatric hospitals. However, in April 1945, a general policy of returning as many patients as possible to the Zone of Interior went into effect. The hospital center of which the 312th Station Hospital (NP) was a component ordered the 312th to ship 200 psychiatric patients to meet certain quotas for evacuation. Most of these patients would have returned to duty. Further orders for similar numbers of patients came later in April and in May, so that by the first of June 1945, the census of the 312th was below a hundred. Very few patients were admitted after June and in July 1945, the unit was moved to the neuropsychiatric installation (96th General Hospital), near Malvern. The neuropsychiatric personnel were redeployed to other organizations, and the 312th Station Hospital ceased to be a neuropsychiatric unit.

The radical change in the function of the 312th Station Hospital during the last few months of its existence is shown in the following tabulation:

Month	*Percent of neuropsychiatric admissions among total admissions*	*Percent of medical and surgical admissions among total admissions*
December 1944	95.7	4.3
January 1945	95.8	4.2
February 1945	95.8	4.2
April 1945	84.7	15.3
May 1945	20.8	79.2
June 1945	11.5	88.6

Special Study

A special study was conducted at the 312th Station Hospital (NP) to determine the proportion of patients who were sent into combat as replacements. The study compared the length of actual combat experience these replacements had had with the length of actual combat experience of those patients who had trained and entered combat with the same unit. "Replacement," as used in the study, was defined as a soldier who had been with his unit less than 30 days before entering combat and who had not trained with the outfit. Direct interviews with 238 individual patients were made to determine the replacement status and length of time in combat. Ward records were studied in a sufficient number of cases to verify the results obtained from direct interviews. The report of this study was submitted on 28 September 1944. The results (table 19) showed that 68.4 percent of the replacements became casualties within 30 days of combat, whereas 47.6 percent of the nonreplacements became casualties within the same period of time. Of the 52.4 percent of nonreplacements who spent more than 30 days in combat, 14 percent had had combat in other theaters.

TABLE 19.—*Comparison of casualty rates among replacements [1] and nonreplacements who had trained and entered combat with the same unit—238 patients at the 312th Station Hospital (NP), by length of service*

Service (days)	Casualties			
	Replacements [1]		Nonreplacements [1] trained with outfit	
	Number	Percent	Number	Percent
10 or less	29	30.6	24	16.8
11 to 20	18	18.9	22	15.4
21 to 30	18	18.9	22	15.4
31 to 40	14	14.7	33	23
41 to 50	7	7.4	15	10.5
51 to 60	6	6.3	16	11.2
61 to 70	3	3.2	2	1.4
71 to 80	0		6	4.2
81 to 90	0		2	1.4
91 to 100	0		0	
Over 100	0		1	0.7
Total	95	100.0	143	100.0

[1] "Replacement," as used in this study, was defined as a soldier who had been with his unit less than 30 days before entering combat and who did not train with the outfit. The average time in combat for replacements was 23.6 days; for nonreplacements, 31.7 days.

Source: Study made by Cpl. Richard H. Gibbons and T5g. Paul D. Goldstein, Psychology and Statistics Department, 312th Station Hospital (NP).

96TH GENERAL HOSPITAL (NP)

The need for a larger "holding" neuropsychiatric unit has already been mentioned. The site for this unit, near Malvern, was chosen in August 1943. At the time, the construction of a general hospital installation was well underway, nearby at Brickbarns; 14 of the medical wards were to be altered along the same plan used in providing a closed neuropsychiatric ward in all other general hospitals. Although only a few of the closed wards were completed by 1 November 1943, it was deemed necessary to open the hospital as soon as possible. Later, further alterations were made for security purposes.

Organization and Development

A special neuropsychiatric unit was not available for the holding function, but with a special table of organization and equipment (TOE 8–550S) approved (26 October 1943), it was decided that the next nonaffiliated general hospital to arrive in the theater would be altered accordingly.[6]

[6] Teletypewriter exchange (commercial), Col. G. W. Beeler to Col. L. B. Meacham, dated 13 Oct. 1943, approved the use for this purpose of the next nonaffiliated hospital to arrive.

Thus, when the 56th General Hospital arrived, it was sent directly to Malvern to function as a neuropsychiatric unit. Patients were admitted on 17 November 1943.

The 56th General Hospital had only one psychiatrist, Maj. (later Lt. Col.) Paul V. Lemkau, MC. With little outside assistance, he quickly organized the neuropsychiatric service and instituted study and treatment of patients, using available medical officers and nursing personnel. During the first month, much was accomplished in organization and preparation for special neuropsychiatric functions. Then, it was decided that the 56th General Hospital was needed elsewhere, and the 96th General Hospital, upon arrival, was designated as the neuropsychiatric unit. This organization, which also arrived with one psychiatrist, Maj. (later Lt. Col.) Hugh E. Kiene, MC, replaced the 56th General Hospital on 13 January 1944. Gradually, the original staff was replaced by neuropsychiatric personnel, as authorized by a letter from Headquarters, Services of Supply, dated 26 January 1944. Within 3 months, key personnel had been assigned, but it was not until September 1944 that a full quota of psychiatrists was present. In the meantime, some of the younger medical officers were trained to a degree where they could function as neuropsychiatric ward officers.

In the reorganization, psychiatry became the principal professional service. All professional personnel were either directly or indirectly controlled by the chief of the psychiatric service. His position was tantamount to director of professional personnel. Of the allotted 39 medical officers, 24 were assigned to the psychiatric service. Circular Letter No. 4, Office of the Chief Surgeon, dated 11 January 1944, made the 96th General Hospital largely responsible for the ultimate care and disposition of the psychotic patients in the theater. It also made the hospital available for receiving any psychiatric patients deemed not capable of rehabilitation for duty in the theater.

Operations

Although the 96th General Hospital had been specified as a "holding neuropsychiatric unit," the commanding officer, Lt. Col. (later Col.) Emmett M. Smith, MC, and others of the hospital staff were not content to restrict the function of the unit to custodial care. Under the direction of Major Kiene, all accepted methods of treatment were used. Capt. (later Maj.) Alexander T. Ross, MC, a well-qualified neurologist, Capt. (later Lt. Col.) Walter Goldfarb, MC, a psychiatrist experienced in shock therapy, and Maj. William Needles, MC, a psychiatrist trained in psychoanalysis, were assigned to the staff.

Insulin and electroshock therapy were used for psychotic patients, and some degree of remission was obtained in about 75 percent of patients so treated. A study of 500 psychotic patients treated with shock therapy

in this hospital has been reported.[7] Rarely was a patient sent to a hospital ship with any form of restraint. While psychotic patients were not specifically held for treatment, usually 2 to 4 weeks were available for treatment before evacuation, by ship, to the Zone of Interior could be implemented. The average time lapse between admission and decision for evacuation to the Zone of Interior was 15 days. The average time a patient remained in the hospital varied from 34 days in September 1944 to 20 days in February 1945.

Almost two-thirds of the patients received by the 96th General Hospital (NP) were not psychotic. The hospital was used to a certain extent as a neuropsychiatric unit by the hospital center in which it was located and, therefore, received the same assortment of neuropsychiatric patients that other general hospitals received. The 96th General Hospital (NP), however, served the entire theater, and this local use by the hospital center often interfered with the larger mission.

Efforts were made to treat and return to duty as many as possible of the nonpsychotic patients—even those transferred as unreclaimable from the 312th Station Hospital (NP). Sleep therapy and modified insulin therapy were used in selected cases. Abreaction with Pentothal Sodium or hypnosis was employed where indicated. Group psychotherapy was routine, and where applicable, individual psychotherapy was used frequently. Facilities were provided for occupational and diversional therapy. Much of the work around the hospital was done by the patients. The rehabilitation program was similar to that established at the "neurosis" hospitals. Two line officers who had been wounded and decorated in combat were responsible for much of the success of rehabilitation. A direct followup of 190 patients, who had already been returned to duty for 2 or more months, showed that 84.2 percent were effective, 3.7 percent performed unsatisfactory duty, 7.9 percent had been rehospitalized, and 4.2 percent had become disciplinary problems.

During the first few months, patients were moved from closed to open sections as treatment progressed, with corresponding changes in attending medical officers. Later arrangements provided each psychiatrist with a closed ward and one or two open wards so patients could be assigned according to condition. The patients then remained under the same physician and were sent to other sections of the hospital for appropriate special treatment.

The 96th General Hospital (NP) was used, to a considerable extent, as a center for officer psychiatric patients, but other general hospitals shared this function. (The 312th Station Hospital (NP) did not admit officer patients.) The 96th General Hospital (NP), like the 36th Station Hospital (NP), was designated as an observation and recommendation center for homosexuals. All female psychotic patients were sent to this

[7] Goldfarb, W., Dorsey, J. F., Laughlin, J. M., and Kiene, H. E.: Experiences With the Pharmacologic Shock Therapies in the "Psychoses" in Military Personnel. Am. J. Psychiat. 102: 602–608, March 1946.

hospital. The only electroencephalographic apparatus available to U.S. Army medical installations was located here. In addition, through the courtesy of British colleagues, it was possible to send patients for electroencephalograms to British hospitals, such as the Head Injury Hospital in Oxford and the Burden Neurological Institute, Stapleton, near Bristol.

Since the 96th General Hospital (NP) was, at times, filled to capacity, waiting lists were established. During such periods, other general hospitals, of necessity, held and carried out evacuation board proceedings for psychotic patients. In the last few months of the war, most patients received at the 96th General Hospital (NP) had been "boarded" by other hospitals, before transfer.

By June 1945, admissions to the 96th General Hospital (NP) had declined markedly. In July 1945, the unit was relieved by the 312th Station Hospital (NP) and remained in a staging status awaiting orders for direct redeployment to the Pacific. Since the 96th was the only neuropsychiatric hospital organized officially on TOE 8–550S, it was, therefore, the only unit in the European theater available for redeployment as a special neuropsychiatric hospital.

The 96th General Hospital (NP) also became the "neurological" hospital for the theater, although other general and station hospitals cared for many neurological cases. When Captain Ross was added to the staff of this hospital, in February 1944, he was placed in charge of the neurological service. Neurological service admissions comprised approximately 8 percent of the total. At first, one ward of 30 beds was sufficient; later, another ward was added to the neurology service and Captain Ross was assigned one medical officer as an assistant. As already noted, the only electroencephalographic apparatus received in the theater from the Zone of Interior was placed in this hospital. Most neurological patients in the theater were "boarded" at the 96th for evacuation to the Zone of Interior. At times, because of evacuation difficulties, as many as 65 neurological patients awaited the next hospital ship.

Statistical Data

A study of the first 1,000 patients admitted to the hospital revealed that the psychotic group comprised 33.7 percent of the cases. A breakdown of the major diagnoses in the two groups follows:

	Percentage of total
Nonpsychotic diagnoses:	
Mental deficiency	11.2
Constitutional psychopathic state	35.2
Psychoneurosis	15.7
Epilepsy (all types)	2.1
No disease	1.4
Miscellaneous	.7
Total	66.3

Psychotic diagnoses:	
Dementia praecox	25.8
Manic depressive psychosis	2.7
Psychosis unclassified	1.8
Traumatic psychosis	1.8
Psychosis with mental deficiency	1.1
Miscellaneous	.5
Total	33.7

The monthly breakdown of all diagnoses made for the period January–December 1944 is shown in table 20. Table 21 contains a similar breakdown for the period January–June 1945.

The distribution of the hospital's bed capacity was as follows:

Wards	*Number of beds*
19 closed wards (30 beds each)	570
14 open wards (30 beds each)	420
2 venereal disease wards (36 beds each)	72
2 isolation wards (10 beds each)	20
Total	1,082

TABLE 20.—*Admissions, percentage breakdown of diagnoses, and cases boarded, 96th General Hospital (NP), January–December 1944, by month*

Month	Admissions (number)	Diagnosis					Cases boarded (number)
		Psychoneurosis (percent)	Psychosis (percent)	Constitutional psychopathic state (percent)	Mental deficiency (percent)	Other (percent)	
January	682	14.7	11.8	17.6	11.8	44.1	34
February	462	16.3	48.9	3.7	4.4	16.7	227
March	522	16.9	46.1	23.7	5.9	7.4	356
April	549	31.6	36.9	20.9	4.9	5.7	244
May	564	22.2	53.9	14.2	5.3	4.4	360
June	751	27.9	34.3	20.2	6.7	10.9	420
July	1,008	49.8	22.3	14.4	6.4	7.1	687
August	1,073	50.7	18.1	18.7	6.3	6.2	845
September	812	52.5	19.8	14.7	5.4	7.6	661
October	810	56.0	17.7	12.8	4.7	8.8	636
November	1,017	56.8	23.7	9.3	3.4	6.8	533
December	885	68.0	16.4	7.4	1.7	6.5	0

Source: Annual Report, 96th General Hospital (NP), 1944.

130TH GENERAL HOSPITAL (NP)

The plan of maintaining a special neuropsychiatric hospital on the Continent to receive combat psychiatric casualties from army exhaustion centers was mentioned in the recommendations made in January 1944.

TABLE 21.—*Admissions, percentage breakdown of diagnoses, and cases boarded, 96th General Hospital (NP), January–June 1945, by month*

Month	Admissions (number)	Diagnosis					Cases boarded (number)
		Psychoneurosis (percent)	Psychosis (percent)	Constitutional psychopathic state (percent)	Mental deficiency (percent)	Other (percent)	
January	1,434	63.7	18.0	9.1	1.9	7.3	504
February	1,215	47.9	29.3	12.6	2.9	7.3	269
March	1,455	52.5	31.9	7.5	2.5	5.6	398
April	1,123	46.4	32.8	12.8	1.9	6.1	375
May	658	53.8	24.4	12.4	2.6	6.8	266
June	185	40.0	33.5	17.5	3.0	6.0	69

Source: Annual Report, 96th General Hospital, 1945.

This topic was also discussed at the meeting of the Professional Services Division with the Chief Surgeon, on 22 January 1944. It was believed that such a unit should be organized and trained for the mission so that it could begin to function as soon as the first fixed hospitals were moved to the Continent. Again, on 4 April 1944, it was recommended that the 312th Station Hospital (NP) be earmarked for such movement; it was, however, recognized that a replacement for the 312th Station Hospital (NP) would be needed. The subject was presented again in a memorandum dated 22 May 1944, calling attention to the rapid establishment of neuropsychiatric hospitals back of the combat zone in World War I. Personnel in the neuropsychiatric hospitals in England were prepared for such a mission, but a special unit for this purpose was not made available until 1 August 1944, when the first general hospitals were moved to the Continent.

Organization and Development

The 130th General Hospital was designated a neuropsychiatric unit before it debarked in England. Colonel Parsons, the commanding officer of the 312th Station Hospital (NP), and many of his experienced personnel were ordered to replace much of the existing personnel of the 130th General Hospital. It was decided to close the 36th Station Hospital (NP) as a neuropsychiatric unit and transfer all neuropsychiatric personnel to the 312th Station Hospital (NP) with Colonel Loeser, now commanding.

The 130th General Hospital unit was met at the train when it arrived at the staging area in England, on 1 August 1944, and reorganization began that night. During August, reorganization and training were completed, and the unit was moved to a staging area in France, on 4 September. However, the hospital equipment, which did not accompany the unit, arrived

the first week in November, and the first patients were admitted on 17 November 1944. After a visit to the theater in September and October 1944, Col. (later Brig. Gen.) William C. Menninger, MC, Consultant in Neuropsychiatry, in the Surgeon General's Office, wrote: "The loss of this hospital through inactivity for over two months has made a major handicap in the effective treatment provided neuropsychiatric patients."

Plans called for the 130th to be located not far to the rear of the field army, to shorten evacuation time by ambulance or other motor vehicle. During September, it was considered that a location near Paris would be advisable. As the front stabilized near the Siegfried Line, a location in northeastern France appeared more desirable. Near the middle of October, a place on the outskirts of Ciney, Belgium, became available. This was not far from both Liége, where several general hospitals were being located, and Namur, site of Headquarters Advance Section, Communications Zone. (The hospital then became a part of the advance section.) At this location, there were paved, unobstructed roads and railroad connections to Namur.

The chosen site for the 130th General Hospital (NP) was that of a Belgian monastery school, which had been used as a hospital by the Germans (fig. 33). Considerable German equipment was still present. The building was comparatively new and in good repair. It was estimated that the capacity of this building would be 400 beds after allowing space for nurses' quarters and mess. Male officers and enlisted men were housed in tents in a field across the main road from the hospital building. Later, the tents were replaced by prefabricated German buildings brought in from the surrounding countryside. A garden area adjoining the school accommodated just enough double-ward tents to add 300 beds to the capacity. In addition, the Germans had erected prefabricated ward buildings on the grounds, which brought the total capacity to approximately 800 beds.

An excellent area for rehabilitation was found about a mile from the hospital, in an old chateau with a large extent of wooded and open ground. The main building served as headquarters and housed the Red Cross activities and classrooms. Tents for 400 men were erected. Also provided were a swimming pool, athletic field, an obstacle course, drill ground, a firing range, and large areas suitable for maneuver problems. This additional site was called the reconditioning section.

Operations

At the time of the opening of the hospital, some of the most difficult fighting of the war was in progress (the Huertgen Forest battle). The general hospitals in the Liége area were filled. It became necessary, at the very start, to use the 130th General Hospital (NP) for the overflow of casualties, and within a few days, more than 1,000 medical and surgical

FIGURE 33.—130th General Hospital, Ciney, Belgium.

patients were admitted. During the last 2 weeks in November, only about 400 psychiatric patients were admitted.

In December 1944, before the start of the German offensive—the Battle of the Bulge—the admission of psychiatric patients began to increase, but did not equal total medical and surgical admissions. As the German drive progressed (17–20 December), it became evident that the hospital would be in the very center of the advance. On 21 and 22 December, all transportable patients and the majority of the staff were evacuated. Colonel Parsons, the commanding officer, and a skeleton staff of volunteers remained to take care of nine nontransportable patients.

On the day before Christmas, German advance units had virtually surrounded the hospital and had cut the main road of escape to Dinant, Belgium. German representatives came to the hospital and ordered that their casualties be well cared for, and many wounded Germans were admitted on Christmas Day. During this period, Colonel Parsons considered that he and the rest of the staff were prisoners of war. Five days after Christmas, Colonel Parsons and his small staff were able to evacuate through the countryside to Namur. After one night there, the Germans

began to retreat and Colonel Parsons returned to the hospital immediately. It was then possible for the remainder of the staff to return, and on 2 January 1945, admission of patients was resumed (fig. 34).

Once more, it became necessary for the hospital to function in a variety of ways. In the first few days of January 1945, this "general hospital (NP)" was forward of the battalion aid stations of the armored division that was fighting in the vicinity. For a short time, it served successively as a clearing station and field hospital, as an evacuation hospital, and, finally, as a station hospital. This last function was necessary because there was no other station hospital for a nearby replacement depot or the headquarters of the advance section. In January 1945, four general hospitals in nearby Liége admitted 463 psychoneurotic patients and returned only 24 percent to duty. Throughout the month of February, only 362 psychiatric patients were admitted to the 130th General Hospital (NP), together with 3,852 medical and surgical patients.

FIGURE 34.—Staff members and consultants at entrance to 130th General Hospital (NP), Ciney, Belgium. Left to right: Maj. Paul V. Lemkau, MC, Chief, Professional Service; Col. Lloyd J. Thompson, MC, Senior Consultant in Neuropsychiatry, ETOUSA; unidentified officer; Lt. Col. Jesse F. Casey, MC; unidentified officer; and Maj. Douglas McG. Kelley, MC, Chief, Neuropsychiatric Treatment Section.

Officially, the intended use of both this hospital and the 51st Station Hospital was stipulated in a circular letter.[8] The 130th General Hospital (NP) was designated to receive neuropsychiatric casualties, from the First and Ninth U.S. Armies, who were reasonably expected to return to duty after 30 days' treatment. The 51st Station Hospital was to perform a similar function for the Third and Seventh U.S. Armies. All other casualties were to be evacuated through the usual channels.

Regardless of many efforts to return the 130th General Hospital (NP) to its primary function, it continued, of necessity, to act as a station hospital. Only in the weeks ending on 1 December 1944 and on 30 March and 6 April 1945, respectively (table 22), did the number of neuropsychiatric admissions surpass the number of medical and surgical admissions. By that time, the field armies had moved so far forward (beyond the Rhine) that all evacuation was by air, and the 130th General Hospital was not utilized again to any extent as a neuropsychiatric unit. However, psychiatric combat casualties continued to arrive in fairly large numbers in the general hospitals in Liége, Paris, and other centers.

Statistical Data

Tables 22 and 23 show the admissions by week and the dispositions by month, respectively, for the 130th General Hospital (NP).

The low rate of return to duty in February 1945 can be accounted for by the 3,852 medical and surgical patients who required practically all the attention of the staff. Nevertheless, it was demonstrated in other months that this hospital could return at least 90 percent of all psychiatric patients to some form of duty.

51ST STATION HOSPITAL (NP)

The 51st Station Hospital (NP) having been organized as a neuropsychiatric unit in 1943, in North Africa, and having served in this capacity in Italy, moved into France in the rear of the Seventh U.S. Army, in October 1944. As stated previously, it was designated as the neuropsychiatric unit to serve the Third and Seventh U.S. Armies, and it opened for admissions in an old French military academy on 18 November 1944. On 29 December 1944, it moved to other military barracks near Lunéville, France. Throughout the time in France, it remained a unit of the Continental Advance Section, organized on a 500-bed station hospital table of organization. At Lunéville, it had a capacity for 628 patients.

[8] Circular Letter No. 13, Office of the Chief Surgeon, European Theater of Operations, U.S. Army, 8 Feb. 1945.

TABLE 22.—*Number of neuropsychiatric and medical and surgical admissions, and percent of neuropsychiatric admissions, to the 130th General Hospital (NP), 17 November–15 December 1944 and 5 January–22 June 1945, by week* [1]

Week ending—	Total number of admissions	Number of medical and surgical admissions	Neuropsychiatric admissions	
			Number	Percent
1944				
November 24	1,320	1,056	264	20.0
December 1	333	151	182	54.7
8	510	277	233	45.7
15	530	339	191	36.0
1945				
January 12	332	304	28	8.4
19	657	627	30	4.6
26	580	541	39	6.7
February 2	645	601	44	6.8
9	1,143	1,078	65	5.7
16	1,548	1,443	105	6.8
23	729	646	83	11.4
March 2	774	665	109	14.1
9	555	428	127	22.9
16	375	279	96	25.6
23	316	211	105	33.2
30	387	160	227	58.7
April 6	348	149	199	57.2
13	259	190	69	26.6
20	290	206	84	29.0
27	258	190	68	26.4
May 4	130	108	22	16.9
11	154	130	24	15.6
18	139	93	46	33.1
25	159	127	32	20.1
June 1	112	87	25	22.3
8	98	81	17	17.3
15	108	53	55	50.9
22	114	70	44	38.6

[1] No records were kept for the period 16 December 1944–4 January 1945.

The experience of the 51st was similar to that of the 130th General Hospital (NP) for, during the German offensive in the last 2 weeks of December, surgical teams were added to the staff to attend to medical and surgical patients. In early April 1945, when the Rhine had been crossed, a recommendation was made to move the hospital beyond the Rhine. Since, however, the progress of the allied armies was very rapid, this move was not accomplished. By the middle of April, admissions of all types of patients to the 51st Station Hospital (NP) had virtually ceased because the hospital was too remote from combat, and practically all evacuation was by air to other points.

TABLE 23.—*Disposition of psychiatric patients, combat and noncombat, from the 130th General Hospital (NP), January–May 1945, by month*

Month	Combat					Noncombat					Total				
	Returned to duty			Transferred	Percent returned to duty	Returned to duty			Transferred	Percent returned to duty	Returned to duty			Transferred	Percent returned to duty
	Limited service	General service	Total			Limited service	General service	Total			Limited service	General service	Total		
January	29	4	33	3	91.7	16	3	19	14	57.6	45	7	52	17	75.4
February	34	7	41	51	44.6	57	14	71	58	55.0	91	21	112	109	50.7
March	161	23	184	36	83.6	30	25	55	54	50.5	191	48	239	90	72.6
April	175	11	186	8	95.9	34	16	50	14	78.1	209	27	236	22	91.5
May	352	23	375	13	96.6	76	11	87	16	84.5	428	34	462	29	94.1
Total	751	68	819	111	88.1	213	69	282	156	64.4	964	137	1,101	267	80.5

It was not until April 1945 that neuropsychiatric admissions equaled the number of medical and surgical admissions (table 24). The neuropsychiatric admissions for the first 4 months of 1945 showed a definite drop in the percentage of anxiety states (table 25).

TABLE 24.—*Percentage of neuropsychiatric admissions among medical and surgical admissions, 51st Station Hospital (NP), January–June 1945, inclusive, by month*

Month	Total number of admissions	Number of medical and surgical admissions	Neuropsychiatric admissions	
			Number	Percent of total admissions
January	1,135	845	290	25.6
February	740	438	302	40.8
March	1,221	680	541	44.3
April	274	133	141	51.5
May and June	105	53	52	49.5
Total	3,475	2,149	1,326	38.2

TABLE 25.—*Percentage of various diagnoses of admissions, 51st Station Hospital (NP), January–April 1945*

Diagnosis	January	February	March	April	January–April, inclusive
Anxiety state	76.2	64.4	53.4	42.4	57.7
Hysteria	11.2	16.0	16.0	25.1	16.8
Other neurosis	8.6	12.4	22.7	20.3	17.6
Constitutional psychopathic state	1.0	.8	.8	2.6	1.1
Psychosis	2.0	2.4	3.8	6.7	4.0
Mentally defective		.5	.2		.2
Epilepsy			.4	0.7	.3
Inebriety			.8	.4	.4
Delinquency		0.4	.2		.2
Other	1.0	3.1	1.7	1.8	1.7

It is interesting that in this hospital the average length of hospitalization per patient was 8 to 10 days (approximately the same as in army exhaustion centers). In other neuropsychiatric hospitals of this type, 3 weeks was the minimum, and the average length of stay was approximately 30 days. However, this unit returned approximately 90 percent of the psychiatric patients to duty in the theater. Seventy-six percent of the psychiatric patients had been in combat, and they were admitted 3 to 14 days after leaving the frontlines.

SUMMARY

The need for and value of neuropsychiatric hospitals immediately to the rear of armies were demonstrated by the 130th General and the 51st Station Hospitals. That they did not function at all times in the desired manner was attributable in large part to difficulties in getting them established on time at the right place and to problems of evacuation from the armies. If these hospitals had been more mobile, some of the difficulty could have been avoided. A 400-bed evacuation hospital as the basic unit (one for each army) would have been better, but such units were not available in the communications zone.

In retrospect, it appears that the neuropsychiatric service in the European theater would have been immeasurably improved if the 36th Station Hospital (NP) had been functioning in the theater by September 1942, or even earlier. The hospital should have been located near a southern port in England, such as Southampton.

The "neurosis" or "rehabilitation" hospital should have been located in the same vicinity. Then, both hospitals could have been expanded to meet all the neuropsychiatric services needed in the United Kingdom. Such a plan would have made evacuation of psychotic patients by hospital ships to the Zone of Interior much more efficient. Also, the location of the "neurosis" hospital near the transit hospitals during combat would have eased evacuation problems and brought earlier and more definitive psychiatric treatment during the first several months of combat. As already mentioned, the movement of the 312th Station Hospital (NP) to the southern part of England was recommended on the basis of climate, but the reasons just stated were even more important.

That the 130th General Hospital (NP) should have been functioning on the Continent at the chosen location near Ciney, by the end of September 1944, seems to be quite obvious. The location, not far from the hospital center in Liége and not far behind the armies it was to serve, was quite propitious.

From the foregoing account, it is evident that no plans were made in the Zone of Interior for specialized neuropsychiatric hospitals in overseas theaters, except for the personnel of the 36th Station Hospital (NP). Much persistence and weeks or months of effort were required to obtain acceptance of these hospitals in the European theater. Several general, evacuation, and station hospitals arrived in the theater, well trained for their assigned missions and ready to carry them out. However, when these units arrived in the theater, the announcement that they would be converted into neuropsychiatric hospitals caused great disillusionment and lowering of morale. Many medical officers, nurses, and enlisted men resented and resisted becoming a part of what they considered a rear echelon neuropsychiatric service, for which they had had no experience or training. Those personnel

who were transferred to other hospitals found themselves strangers in well-knit units and at the bottom of the ladder for promotion or responsibility.

Section II. General and Station Hospitals

EARLY POLICIES

The policy of maintaining inpatient, outpatient, rehabilitation, and consultation neuropsychiatric services in all general and station hospitals has already been mentioned. The pertinent directive (Circular Letter No. 67, p. 224) stated that all general and station hospitals would treat and return to duty as many neuropsychiatric patients as possible. Attention was called to the importance of adequate outpatient services by Administrative Memorandum No. 47, dated 6 April 1944. A form (ETOUSA MD Form No. 304) was used from the beginning of 1943 by all general and station hospitals to report not only patients in the neuropsychiatric section but also those seen in hospital and outpatient consultations. This form directed the use of nine different diagnostic categories.[9] At the same time, ETOUSA MD Form No. 312 was introduced for use in all referrals of neuropsychiatric patients to hospitals. This form contained a special section for reporting head injuries and another for reporting convulsive seizures.

Nonpsychotic patients were not transferred to a special neuropsychiatric hospital until study and treatment revealed that further specialized care was necessary. Psychotic patients, too, were treated while awaiting transfer or evacuation. However, it was not until late in the war that electroshock machines were available for use in a few general hospitals.

INPATIENT FACILITIES

Recommendations pertaining to personnel and closed wards in general hospitals have already been discussed. By March 1944, closed wards had been completed in 25 general hospitals, with a total of 689 beds. In addition there were 675 closed-ward beds in the two special neuropsychiatric hospitals. On 29 March 1944, at the monthly meeting of the Division of Professional Services with the Chief Surgeon, the following estimate of total neuropsychiatric beds for the theater was submitted:

Closed-ward beds:	*Number*
96th General Hospital (NP)	513
36th Station Hospital (NP)	300
General hospitals	766
Total	1,579

[9] Memorandum, Senior Consultant in Psychiatry, for Director, Professional Service, European Theater of Operations, U.S. Army, 2 Dec. 1942, subject: Instruction to Psychiatrists in Charge of Neuropsychiatric Sections in General and Station Hospitals Relative to the Preparation of Monthly Reports on Completed Neurological and Psychiatric Examinations.

	Number
Open-ward beds:	
96th General Hospital (NP)	700
312th Station Hospital (NP)	1,200
General hospitals (60 beds each)	8,460
Station hospitals (30 beds each)	1,000
Total	11,360
Grand total	12,939

PERSONNEL

In the general hospitals arriving in 1942, it was possible to have a neurologist and a psychiatrist on each staff. Later, this was not possible because of the shortage of neurologists, but in many instances, the chief of the neuropsychiatric section was well grounded in both aspects of neuropsychiatry. With 146 general hospitals and 49 station hospitals in the theater, at the end of the war, considerable variation in capability and practice in neuropsychiatric sections was unavoidable. Through courses, training, and visits for general and station hospital psychiatrists at the special neuropsychiatric hospitals, much was accomplished in bringing about uniformity of policies and methods of treatment.

As the theater grew larger, particularly after D-day, it was impossible for Colonel Thompson to visit all hospitals routinely. Earlier, when decentralization through base section command had occurred, base section consultants in neuropsychiatry were not appointed (only consultants in medicine and surgery). An exception to this existed for a time when the commanding officers of the 36th Station Hospital (NP) and the 312th Station Hospital (NP) acted in a consulting capacity to the surgeons of their respective base sections, the Southern Base Section and the Western Base Section. Preceding this arrangement, Maj. (later Lt. Col.) Jackson M. Thomas, MC, was appointed consultant in neuropsychiatry for the Southern Base Section, 22 February 1943. He held this position until his departure from the theater on 1 September 1943.

However, in 1943 with the establishment of hospital centers, a consultant in psychiatry and a consultant in neurology were appointed in each center. These consultants continued their regular hospital work in the hospitals where assigned, but were available for consultation in difficult cases and in questions of policy and methods of treatment.

Circular Letter No. 89, Office of the Chief Surgeon, Headquarters, ETOUSA, of 21 May 1943, listed the following medical officers as regional consultants in neurology and psychiatry:

In neurology:

Lt. Col. Wardner D. Ayer
Maj. Rollo J. Masselink
Maj. Roy L. Swank
Maj. Lewis H. Loeser

In psychiatry:
Maj. Moses M. Frohlich
Maj. Charles W. Hutchings
Capt. Douglas McG. Kelley
Lt. Col. Ernest H. Parsons
Maj. Jackson M. Thomas
Maj. Donald W. Hastings [Eighth Air Force]. [The appointment of Major (then Captain) Hastings in the Eighth Air Force was effected on 7 February 1943.]

NEUROSIS CENTERS

The "neurosis center" at the 5th General Hospital was established by Circular Letter No. 26, Office of the Chief Surgeon, Headquarters, ETOUSA, dated 12 February 1943. Although available for all branches of the service, the center was essentially for the treatment of Eighth Air Force flying personnel. Soon after the Army Air Forces started operations in the European theater, a significant number of flying personnel began showing symptoms of what was then termed "operational fatigue." In close cooperation with the Surgeon, Eighth Air Force, and with the advisory assistance of Captain Hastings, it was decided to send all such patients needing treatment to the neuropsychiatric section of the 5th General Hospital, located at Salisbury. The section of the hospital that had been built for venereal disease service was used for the neuropsychiatric function. It proved to be an excellent arrangement.

Major Swank, chief of the neuropsychiatry section, was assisted by other psychiatrists from both the staff of the hospital and the Eighth Air Force. All the psychiatrists concerned agreed that deep sleep therapy, psychotherapy, physiotherapy, rehabilitation, and special attention to nutrition would be the principal methods of treatment. Continuous deep sleep under Sodium Amytal (amobarbital sodium) for approximately 48 hours was employed in practically all patients. A followup study on 90 of the first 100 patients reported by Headquarters, Eighth Air Force, revealed that from 46 to 51 percent were returned to combat and flew one or more combat missions satisfactorily.

In March 1944, the "neurosis center" was moved to the 97th General Hospital, Wheatley, Oxfordshire, near the Central Medical Establishment and the resthomes of the Eighth Air Force. As the type of air combat changed, the need for the center diminished.

Additionally, several general and station hospitals located in East Anglia, England, served as "Air Force hospitals," and the neuropsychiatric sections of these hospitals cared for both air and ground personnel.

HOSPITAL CENTERS

In the 12th Hospital Center of which the 96th General Hospital (NP) was a component, Lt. Col. Arthur O. Hecker, MC, the coordinator of medicine

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in the Office of the Surgeon of the center, was a psychiatrist. In this center, it was decided to centralize the treatment of nonpsychotic psychiatric patients in one place, the 114th General Hospital, Bewdley, Worcestershire. Psychiatrists from other general hospitals were placed on detached service at the 114th General Hospital, and a 300-bed neuropsychiatric section with a complete rehabilitation program was established. The return-to-duty rate was practically the same as that of the neuropsychiatric hospitals.

No other hospital centers designated one specific hospital for psychiatric patients until late in the war. As has already been noted, in those hospital centers where a special neuropsychiatric hospital was located, the tendency was to use it to the advantage of the center. It should be added that many general hospitals were designated as centers for such other specialties as neurosurgery, plastic surgery, and otolaryngology.

Early in 1945, the 116th Hospital Center, Paris, began concentrating psychiatric patients in hospitals with specially constructed neuropsychiatric wards. By March 1945, large numbers of psychiatric patients were arriving in Paris, mostly by air, bypassing the two neuropsychiatric hospitals farther forward. At this time, the 116th Hospital Center designated the 191st General Hospital, located in a French mental hospital, as a neuropsychiatric center, in addition to its general hospital functions. Psychiatrists were brought in from other hospitals, and the staff was augmented as far as possible. Later in April 1945, the census in the neuropsychiatric section reached a peak of about 1,000 patients. The policy of moving patients as rapidly as possible toward the Zone of Interior was in effect, and the return-to-duty rate was not high. Frequent staff changes occurred, especially after redeployment, and at times, the section was decidedly understaffed, and considerable time was taken up with "boarding" processes.

Until just before D-day, the neuropsychiatric sections in practically all general and station hospitals functioned efficiently. Table 26 shows the types of conditions met in general and station hospitals during 1943, which was essentially a "noncombat" year. (The statistics do not include the special neuropsychiatric hospitals.) During the first 4 months of 1944, 75 percent of the psychiatric patients returned to duty by station and general hospitals were classified for full assignment. Most patients transferred to a neuropsychiatric hospital were previously in only one hospital.

In the spring of 1944, the older, more experienced hospital units began moving to staging areas in preparation for D-day. Their places were taken by new units, recently arrived in the theater. Consequently, there was a temporary drop in efficiency because of insufficient time to send the incoming psychiatrists to orientation courses, although most of them visited the neuropsychiatric hospitals on temporary duty.

In late 1944, several general hospitals arrived in the theater without specialists of any category. This was in accordance with the reduced table of organization and with the agreement to supply needed specialists from

TABLE 26.—*Psychiatric patients in general and station hospitals,[1] European Theater of Operations, U.S. Army, by month and diagnosis, 1943*

Month	Neuroses	Psychoses	Constitutional psychopathic state	Mentally defective	Organic central nervous system disease	Epilepsy	Inebriety	Other	Total
January	198	63	30	24	21	13	9	35	393
February	223	50	58	35	35	22	11	55	489
March	213	42	69	24	24	16	11	57	456
April	264	14	52	14	49	12	14	71	490
May	173	24	57	16	32	6	5	76	389
June	168	22	32	18	29	10	6	87	372
July	158	27	37	9	69	8	9	86	403
August	275	61	49	13	76	12	2	122	610
September	418	70	84	42	116	31	10	151	922
October	537	88	122	102	109	32	7	260	1,257
November	633	122	150	55	125	52	12	261	1,410
December	708	112	199	74	186	43	11	257	1,590
Total	3,968	695	939	426	871	257	107	1,518	8,781

[1] Included are patients in NP wards and patients seen in consultation on other services and in outpatient clinics.

within the theater. It was with difficulty that capable psychiatrists were found for these positions, and sometimes, medical officers with little or no training in psychiatry had to assume charge of a neuropsychiatric section. All of these hospitals had clinical psychologists; so until a psychiatrist was found to establish a neuropsychiatric section, the psychologists were assigned to a variety of duties.

POSTINVASION PERIOD

At the time of invasion in June 1944, several general and station hospitals located near the southern shores of England were designated as transit hospitals. A little later, three more hospitals located adjacent to inland airfields were placed in the same category. These transit hospitals received all casualties evacuated from France and gave necessary emergency treatment. Patients seldom remained more than 2 days before being evacuated by hospital trains to hospital centers, where they were allocated to general hospitals. During June and July 1944, all casualties who could not be returned to duty by army medical units on the Continent were evacuated by water or air to the transit hospitals in England. Almost all the psychiatric patients came by water, and little isolation of them was possible. Although psychiatrists remained in the transit hospitals, very little treatment could be instituted, and only in rare instances was a psychiatric patient returned to duty from this echelon.

The possibility of routing the psychiatric patients to the 36th Station Hospital (NP) was considered, but transportation would have been directly across all streams of traffic, and ambulances or other motor vehicles were not available at that time. The possibility of sending psychiatric patients directly to the 312th Station Hospital (NP) by train was also considered, but it was not possible to accumulate psychiatric patients in a transit hospital, and trains could not be made available for this purpose. Accordingly, the psychiatric casualties went with all other patients to whatever general hospital the hospital train was sent.

The percentage of neuropsychiatric casualties in relation to total admissions at the transit hospitals was relatively low during the first 2 weeks but gradually increased, as shown in the following tabulation:

Date	*Percent*
6–13 June 1944	2.04
13–20 June 1944	5.11
20–27 June 1944	8.20
27 June–11 July 1944	7.20
11–26 July 1944	7.14

The percentage of psychiatric patients admitted to the transit hospitals was considered an accurate estimate of the neuropsychiatric rate of evacuation from the Army during this time. With the establishment of general hospitals on the Continent, beginning on the first of August, this was no longer true. In addition, psychiatrists in the transit hospitals noted that among the wounded and injured were many patients with mild or moderately severe anxiety states, who were not counted as psychiatric casualties.

For 2 months after D-day, and perhaps even longer, the psychiatric patients evacuated from the army area received no further specific treatment, except sedation, until they reached a general hospital in England. Usually, the delay approximated one week. In those early months of combat, the treatment in the general hospitals in England seemed efficacious, and more than half of the psychiatric patients were sent, within 2 to 4 weeks, to the 10th Reinforcement Depot (Lichfield, England) for return to duty. However, at the depot, there was some delay during which time the patients had military discipline, had to handle weapons again, and had considerable uncertainty about the type of assignment (frontline duty again or limited assignment). This uncertainty persisted despite the known hospital recommendation regarding duty. In many instances, patients had to be rehospitalized because of recurrence or exacerbation of symptoms. This decision for rehospitalization was made by the psychiatrists at the reinforcement depot, and patients to be rehospitalized were sent directly to the nearby 312th Station Hospital (NP). During August and September 1944, the 312th

TABLE 27.—*Neuropsychiatric readmissions to 312th Station Hospital (NP), from 10th Reinforcement Depot, 30 June–18 August 1944*

Week ending—	Total neuropsychiatric admissions (number)	Neuropsychiatric readmissions to hospital	
		Number	Percent
30 June	137	117	85.4
7 July	358	81	22.6
14 July	224	126	56.2
21 July	280	61	21.8
28 July	257	54	21.0
4 August	281	88	31.3
11 August	318	49	15.4
18 August	426	54	12.7

Station Hospital (NP) returned 90 percent of these patients to duty. The rate of rehospitalization by the reinforcement depot is shown in table 27.

The percentage rehospitalized continued to fall. In November 1944, it was 5 percent, and subsequently ranged still lower. At the 19th Reinforcement Depot, Étampes, France, for the week ending on 12 January 1945, the rate was 0.25 percent. It should be pointed out that many of the "relapse cases" were wounded men who had not come to the attention of the hospital psychiatrist. Approximately 40 percent of these rehospitalized psychiatric patients had not been seen at first by a psychiatrist in the general hospitals.

As soon as this situation became evident, Colonels Thompson and Parsons visited the general hospitals and recommended closer scrutiny of all patients and more prolonged and intensive treatment. Arrangements were made for each hospital to be notified by name of their patients who had to be rehospitalized. Additional information on this topic is contained in chapter XI.

RAPID MOVEMENT PERIOD

The few general hospitals in Normandy were just beginning to function, in middle or late August 1944, when the breakthrough to the south started. By the end of the month, the armies were well advanced and Paris was occupied. Other general hospitals came to the Continent at this time and were located farther inland and to the south, but some distance from the front. By the time hospitals were opened in Paris, the allied advance had reached the eastern boundaries of France. It was not until the end of October 1944, when general hospitals moved into Liége and northeastern France, that the communications zone hospitals "caught up" with the rapidly advancing armies. The same was true of the invasion force that came into France from the Mediterranean. From the standpoint of neuro-

psychiatric services, only a very mobile unit could have remained within easy evacuating distance of the armies.

It was originally planned to place the tented general hospitals, established on the Continent, in semipermanent buildings. Included in the plans were neuropsychiatric wards superior to those existing in the general hospitals in England. These plans were never implemented because the rapid advance made hospital and school buildings available in the liberated cities. In several instances, the hospital buildings contained special neuropsychiatric wards, and three general hospitals were located in French mental hospital installations.

During the severe fighting of the autumn and winter of 1944, patients of all types had to be sent back from hospital to hospital until they reached England. This multiple hospitalization was sometimes avoided by air evacuation to England, but very few psychiatric patients were evacuated in this manner. To illustrate the process: Because the general hospitals in Liége had to maintain a good proportion of beds available for emergencies, their policy was one of rapid evacuation. Since psychiatric patients were always transportable, they went with other patients by hospital train, usually to Paris. The Paris hospitals became filled and had to evacuate to hospitals near the coast, which became largely holding hospitals for evacuation to England. In this way, psychiatric patients did not stay long enough in any one hospital for treatment to be carried out. The difficulties of centralizing neuropsychiatric services in the two special hospitals on the Continent have been explained. Also already mentioned was the centralization in Paris which started in March 1945. Later, there was some centralization in the Mourmelon area and in southern France, but this came at the very end of combat when problems of "boarding" and evacuation gained priority over treatment and return to duty.

CONCLUSIONS

In the communications zone, general and station hospitals carried the burden of responsibility for neuropsychiatric services. Many of these hospitals had excellent therapeutic and rehabilitation programs. Many excellent detailed reports on the neuropsychiatric services in these hospitals have been recorded and are of great interest, but to give the full account of any one or two units in this space would be to discriminate against many equally worthy ones. Also, in several instances—owing to lack of personnel, to the placement and use of the hospital, to the time element, and to other factors—the neuropsychiatric services of certain hospitals never functioned as they might have under other circumstances.

Section III. Treatment

PREVENTIVE MEASURES

It is appropriate to mention the topic of prevention because there is no sharp dividing line between prevention and treatment. It has been noted before that most frontline medical officers received one week of instruction in "first aid psychiatry" with considerable emphasis on prevention. Also, line officers received formal and informal instruction on this topic from psychiatrists, particularly army and division psychiatrists. The motion picture film entitled "Combat Exhaustion," which ended on the keynote of prevention, was available in each army and in the communications zone. The following War Department technical bulletins were widely distributed in the theater:

1. TB MED 12 (22 February 1944). Lecture outlines for officers on personnel adjustment problems.
2. TB MED 21 (15 March 1944). Lecture outlines for enlisted men on personal adjustment problems.
3. TB MED 94 (21 September 1944). Neuropsychiatry for general medical officer.

Before D-day, directives and meetings frequently called attention to the desirability of using consultation and outpatient services as preventive measures. Also before D-day, there was considerable unofficial and little publicized screening of division personnel to eliminate those who would surely break down early in battle.[10] How much was accomplished along this line by division neuropsychiatrists, even after D-day, has not been recorded.

Some general principles of prevention of neuropsychiatric disabilities were published in the *Manual of Therapy, European Theater of Operations* (5 May 1944), which was distributed to every medical officer in the theater. The contents of the section on prevention follow.

(1) The unit medical officer is in a strategic position to do much towards the prevention of neurotic conditions, and even other neuropsychiatric disabilities. While fitting the soldiers into their proper niches so the job is neither too big nor too little for their abilities, experiences and interests, should have been accomplished in earlier selection, classification and assignments, much may remain to be done within the unit before combat. The medical officer should be aware of the need for such procedures and contribute his share in the process.

(2) Helping others to understand the nature and meaning of fear and how to deal with it falls in the province of the medical officer. Fear is nature's way of mobilizing the individual for an all-out emergency. Physiologically it is preparation of the body for action. The heart and lungs through increased rate of function supply more oxygen where needed. Adrenalin is poured into the blood stream and sugar is released to serve as fuel. Fear within limits increases strength and endurance. However, courage and

[10] This type of screening should not be confused with induction screening to prevent unsuitable individuals from entering the service. After psychiatrists were assigned to divisions (November 1943), a common procedure was the screening of division personnel to remove from the division unstable or unsuitable individuals. This practice was conducted in an irregular fashion, and its efficacy was never validated.—A. J. G.

fear are not opposites. It may be helpful to the soldier to know that courage consists of doing one's duty though one is terrified. Doing a duty without fear is not courageous or brave, just as it is not virtuous to refrain from sin which one has no desire to commit.

(3) Fear may be controlled and kept in its proper perspective by—

(a) Adequate training and discipline. Training should be sufficient to give a man confidence in his ability to handle himself as well as all necessary weapons. Discipline forms habits that make it second nature to carry out his own job as a member of a fighting team. Disciplined habits may take care of a man even when he is too frightened to think clearly.

(b) Confidence in those in command and in other members of his team.

(c) Action. Once the battle is on fear tends to subside. In moments or hours of waiting for combat, work, drill, exercise, seeing that everything is in shape, or any other type of occupation is in order.

(d) Contact with others. Although men should not be in large groups, just the presence of another man not far off minimizes fear. Roll call lets the man know that he is one of a unit and that the others are there.

(e) Knowledge of what to expect. The known is never so frightening as the unknown. Men should be informed of the dangers they may meet, of the plan of attack, and of the tactics and weapons that may be used by the enemy.

(4) These and other factors related to the emotional state of the soldier may not be the direct concern of the medical officer but he has the opportunity and the duty to contribute his part in the understanding of and the action taken in such matters. The medical officer should know his men and his fellow officers and, more important, be known by them. He should be on the lookout for the man who is getting jumpy, going off by himself, becoming sleepless, losing appetite, or showing any other symptoms of nervous strain. He should see that the men are as comfortable, as well fed, and as clean as possible under any given set of circumstances. He should have an interest in their everyday life, their sports, and their military equipment and discipline. He should share their dangers and hardships. These things will gain respect and confidence and will lead men to the medical officer for discussion of personal problems and not just for sick call. This type of work can be carried out only by the medical officer stationed with troops and it will result in fewer neuroses being sent down the line for more specialized treatment.

If the foregoing had been rewritten later in the war, more emphasis would have been placed on the subject of leadership and much would have been said about definite rest periods for combat units, not only from the standpoint of relief of fatigue but also from the standpoint of giving the soldier a goal and perhaps a reward.

GENERAL TREATMENT

Discussion of treatment focuses attention mainly on combat-incurred psychiatric casualties. In general, the treatment of neuropsychiatric conditions arising outside of combat situations was more or less the same as that applied in peacetime. However, in a theater of war were stresses and strains not found in peacetime or in the wartime Zone of Interior. All troops were far from home, and many who were never near the front were subjected to air raids and the "V" weapons. In fact, types, techniques, and principles of therapy for combat patients were worked out long before

D-day at the neuropsychiatric units in England, and applied as far as necessary in non-combat-incurred cases.

The first principle of therapy was to decide which patients to treat. In various echelons, this was the first important step requiring the best of clinical judgment. For example, in army installations, psychotic, epileptic, feebleminded, and other grossly handicapped patients were immediately labeled for evacuation but in some measure received treatment and were prepared for more definitive therapy.

Full credit must be given the neuropsychiatrists of the various British services for sharing their combat experiences, which provided a firm foundation for the therapy later applied in the U.S. Army. In October 1942, meetings were held at the direction of Brigadier John R. Rees (Consultant in Neuropsychiatry, RAMC), to discuss the early treatment of psychoneuroses. The discussion was focused on "frontline psychiatry," but much of it was applicable in rear echelons. It was emphasized that some physical methods of treating neuroses gave good results. The need for psychotherapy was not minimized, but it was believed that little intensive individual psychotherapy could be carried out near the front in the early stages of neuroses, when treatment was most needed and was most efficacious. One of the principal objects of early treatment was the prevention of fixation of symptomatology.

SPECIFIC TREATMENT

Sedation therapy, lasting about 20 hours, was recommended for anxiety conditions, with the use of intravenous medication in acute panic reactions. Modified insulin therapy had been found very useful in anxiety conditions and even in hysterical conditions where loss of appetite and weight was of frequent occurrence. It was strongly advised that amnesias and somatic conversion hysteria symptoms be relieved as rapidly as possible. Chemical hypnosis was considered the best method for removing such symptoms. In general prodromal symptoms such as uneasiness and irritability, it was believed that the judicious use of mild sedation would be helpful. Experience in the Middle East confirmed the "immense value of early sedation" in the majority of conditions. Treatment was to be considered in terms of hours, rather than days or weeks, after onset—"not unlike consideration of an acute surgical abdomen." Sodium Amytal was the drug of choice for sedation.

On the basis of these facts, definite recommendations concerning treatment were submitted to the Chief Surgeon on 21 October 1942. These recommendations included the amount of sedative drugs needed for every 10,000 men in combat. Later, a study of the allotment of drugs that might be used by neuropsychiatrists revealed a lack of certain items in installations where they would be needed. Recommendations for correction of the situation, dated 7 December 1942, were as follows:

Sodium Amytal (1 g. ampules) should be supplied in all units including division medical chests.

Sodium Amytal (3 gr. tablets or capsules) should be standard supply in all units.

Amytal (1½ gr. tablets) is not needed.

Nembutal (1½ gr. tablets) should be supplied in all units.

Pentothal (1 g. ampules) should be supplied in all units.

Dilantin sodium (1½ gr. tablets) should be supplied to general and station hospitals.

Paraldehyde should be supplied to general, station and evacuation hospitals.

Details of accepted therapy for psychiatric casualties at the front were given in the *Manual of Therapy*. This was written, as already mentioned, in the spring of 1943, at a time when it was believed that neuropsychiatrists would not be available forward of evacuation hospitals.

In October 1943, a general directive on the management of psychiatric casualties was written but not published, pending the visit of the NATOUSA consultant in neuropsychiatry. However, during that visit, a directive issued by the Surgeon General's Office was republished in the theater as Circular Letter No. 2, Office of the Chief Surgeon, dated 6 January 1944. This circular letter and the *Manual of Therapy* became the official basis for therapy of psychiatric casualties, with a few details and modifications added from time to time.

In the neuropsychiatric hospitals ("neurosis hospitals") of the communications zone, treatment programs could be more elaborate than those in forward field installations, as described in section I of this chapter. (It must be remembered that patients reached these neuropsychiatric hospitals after going through other installations where some treatment had usually been carried out.)

The initial thorough study of each case, with a detailed physical examination and all necessary laboratory and X-ray procedures, gave the soldier assurance that he was receiving the best of individual attention. The treatment indicated was carefully explained to the patient, so that he knew just what to expect, and cooperation was gained thereby. Admittedly, certain specific therapies may not have been directly efficacious in every single instance, but in the treatment section where everyone (including each patient) was concerned with treatment, an optimistic attitude was created in both patients and staff members. The helpful attitudes and excellent techniques developed by the Medical Department enlisted men under such conditions were most striking. The various treatment methods follow.

Physiological Techniques

Restorative and reparative methods

Very little need be said here about restorative and reparative methods of treatment. Sometimes it appeared that a soldier was dehydrated and needed fluids. Vitamins, usually in combinations, were generously given

where food intake had been curtailed, although rarely was there clinical evidence of any vitamin deficiency. Thiamine hydrochloride was usually included whenever extra vitamins were given. Caloric intake was always watched and kept high when there had been undernourishment or loss of weight. Theoretically, the possibility of disturbed nitrogen metabolism was considered but there were no facilities for its determination.

To obtain a normal night's sleep was often a problem because of tension and disturbing dreams. Sodium Amytal (6 to 9 grains) usually produced results. Other available drugs such as Nembutal (pentobarbital sodium), paraldehyde, or phenobarbital were sometimes used. Wetpacks were used occasionally, as was hypnosis.

Resynthesis

Prolonged sleep treatment.—Objections to prolonged sleep treatment were raised on the ground that it produced an escape and a regression which at times amounted to an "amnesia." Not infrequently, soldiers confused this period of sleep with amnesia, especially when such treatment was given near the front. Occasionally, the two conditions did overlap. Some psychiatrists believed that the regression and escape were desirable and advocated treating the soldier as a child during sleep therapy with "maturity" returning during rehabilitation. Also, due consideration was given to restorative properties of sleep. Not infrequently during sleep therapy, abreaction would occur spontaneously. When time permitted, the material produced was used later in individual psychotherapeutic interviews.

The most definite indications for prolonged sleep therapy were found in soldiers with anxiety symptoms who had been in combat for a long period and who had averaged only a few hours of sleep out of every 24. Usually, they also showed signs of physical exhaustion. When hysterical symptoms were removed, a similar anxiety picture often persisted, and sleep therapy was used. Farther from the front, when neurotic symptoms appeared to be becoming fixed, sleep therapy was often beneficial.

Sodium Amytal was the drug of choice although other drugs were sometimes used as a substitute or in combination. A steady supply of Sodium Amytal was assured; it was relatively nontoxic; it produced the desired results; and the aftereffects soon disappeared.

At the 5th General Hospital where, early in 1943, treatment of Army Air Forces flying personnel began, deep narcosis therapy was employed under the direction of Major Swank. After some trials, it was decided that 48 hours of *deep* narcosis was usually satisfactory. The dosage of Sodium Amytal was adjusted to the weight of the patient and to individual needs. The average daily dose was between 8 to 10 grams. During the treatment, patients received six feedings per day—approximating 4,000 available calories with the addition of vitamins. Fluid intake by mouth of 1,500 to

2,000 cc. was maintained. Nursing care and every detail of treatment, including measures to prevent atelectasis, were part of the routine.[11]

In the neuropsychiatric hospitals, it was decided that deep narcosis therapy would not be used. This was due partly to the excessive demand of such treatment on personnel time, and also to the belief that good results could be obtained with lighter sleep therapy. At first, such mild sleep treatment was continued for 7 days, but it was soon found that 2 or 3 days sufficed. Repeated doses of Sodium Amytal (6 gr.) were given with a maximum daily dose of 30 grains. If this dose was not sufficiently effective, it was supplemented with paraldehyde. The patient was awakened three to four times a day for nourishment and personal hygiene. Deep breathing exercises were given, and at the end of treatment, 50 to 60 units of insulin were given to prevent aftereffects or "hangovers."

The daily routine for prolonged sleep therapy was as follows:

0600–0630	Patients awakened—personal hygiene.
0630–0700	Breathing exercises.
0700–0715	Medication (Sodium Amytal).
0715–0800	Breakfast and patients to bed.
0800–1115	Sleep.
1115–1130	Patients awakened—personal hygiene.
1130–1145	Medication (Sodium Amytal).
1145–1215	Lunch and patients to bed.
1215–1615	Sleep.
1615–1645	Patients awakened—personal hygiene.
1645–1715	Supper.
1715–1915	Ward fatigue, personal hygiene (shave, shower, etc.).
1915–1930	Medication (Sodium Amytal).
1930–2000	Patients to bed.
2000	Lights out.

Insulin.—Modified insulin or insulin subshock therapy was adopted early at the 36th Station Hospital (NP) and at some of the general hospitals. At first, it was considered of value in patients with fairly stable personalities who had developed a mixture of anxiety and depressive symptoms after long periods of stress. After combat started, it was found most useful in recently developed anxiety states or anxiety hysterias, with or without depressive symptoms. It was particularly useful where there were gastrointestinal disturbances with loss of weight, as frequently occurred in patients with anxiety and depressive conditions. An obvious increase in appetite and gain in weight occurred in most of these patients. Patients on the insulin treatment wards consumed an average of more than 6,000 calories of food per day, and the weight gain ranged from 5 to 10 pounds a week. The gain in weight was not due to fluid absorption in the tissues, and there was no evidence of edema. Gain was seldom beyond the normal weight

[11] A detailed account of this experience appears in the following monograph: Hastings, Donald W., Wright, David G., and Glueck, Bernard C.: Psychiatric Experiences of the Eighth Air Force, 1942–43. New York: Josiah Macy Jr. Foundation, August 1944.

of the individual. A feeling of well-being usually accompanied the regained weight which to some soldiers meant repossession of their personality as it existed before combat strain.

During the treatment, most patients dozed or slept, and this sedative effect was considered desirable. Other patients were restless, and some seemed to regress and relive combat or earlier experiences. Definite abreaction episodes spontaneously happened or could be readily touched off. Many were able to speak freely of experiences previously repressed, bringing about a helpful unburdening. The patients were more or less conscious throughout treatment, especially when talking, so that productions could readily be used later in psychotherapeutic interviews.

Quite early, it was found that a small dose of phenobarbital before the administration of insulin prevented convulsions or undue psychomotor activity. No breakfast was allowed, and the insulin was given at 7 or 8 a.m. It was found that an initial dose of 30 to 40 units could be given. This was increased daily until definite symptoms of hypoglycemia appeared. Optimal dosage was indicated by marked hunger, diaphoresis, and a general sense of weakness. Variation in dosage was an individual matter, and some patients developed a tolerance to their optimal dose. Seldom was the maximum dose more than 100 units. If there was too much psychomotor activity or evidence of insulin coma, treatment was terminated immediately.

For all patients, treatment was terminated in about 3 hours by oral ingestion of a carbohydrate. This was followed immediately by breakfast which was usually consumed ravenously. Lunch followed soon afterward, and double mess rations were allotted to the insulin wards. The remainder of the day was spent in activities. The optimum total duration of modified insulin therapy was about 14 days. It was found that some patients received their maximum benefit in a shorter period, and at times, it was necessary to limit the duration to 7–10 days. A daily schedule for modified insulin therapy follows.

0600–0615	Patients awakened—personal hygiene.
0615–0630	Physical training.
0630–0700	Ward fatigue—weigh patients.
0700–0730	Patients to bed—insulin given.
0730–1030	Period of hypoglycemia.
1030–1045	Treatment terminated (breakfast, sugar solutions, or alcoholic solution as indicated).
1045–1145	Lunch.
1145–1200	Rest period.
1200–1330	Ward fatigue.
1330–1500	Rest and recreational period.
1500–1530	Nourishment (sandwiches, milk, fruit drinks, etc.).
1530–1600	Rest period.
1600–1730	Drill and outdoor exercise, group and individual psychotherapy, special therapies, narcotherapies.
1730–1800	Supper.

1800–1830 Ward fatigue.
1830–2000 Occupational therapy, autobiography, etc.
2000–2030 Nourishment.
2030–2130 Patients to bed—personal hygiene.
2130 Lights out.

Combined prolonged sleep and insulin treatment.—It was recognized that the indications for prolonged sleep therapy and modified insulin therapy overlapped considerably. At first, many patients had prolonged sleep therapy followed by modified insulin therapy, but it was soon found that the two could be combined, with a considerable saving of time. This combined therapy became the accepted standard in the neuropsychiatric hospitals and was used extensively in the British neurosis hospitals. A 7-day treatment routine for this combined therapy which was used, especially in combat cases, follows (obviously, the insulin part could be continued).

Day of admission to treatment section:

1. Feed patient if he has not been fed.
2. Shower and shave if necessary.
3. Interview by ward officer.
4. Sodium Amytal gr IX at 1300 hours if admitted in a.m.
5. Sodium Amytal gr XV at 2000 hours if admitted in p.m.

First treatment day:

0700 Routine blood work.
0700 Phenobarbital.
0715 Insulin (u. 60).
1030 Cereal.
1045 Lunch.
1100 Multivitamins.
1230 Sodium Amytal.
1630 Supper.
1915 Sodium Amytal.
2000 Lights out.

Second treatment day:

0700 Phenobarbital.
0715 Insulin (dose increased or decreased u. 10 depending on reaction of previous day).
1030 Cereal.
1045 Lunch.
1100 Multivitamins.
1330 Transfer to Insulin Ward.
1630 Supper.
1700 Shower and shave.
2000 Seconal or Nembutal plus Sodium Amytal.

Third treatment day:

0700 Phenobarbital.
0715 Insulin (increase or decrease from previous day's dose).
1030–1700 Same routine.
Individual psychotherapeutic interview in the afternoon.
2000 Seconal or Nembutal if necessary.

Fourth, fifth and sixth treatment days:
0700 Phenobarbital.
0700 Insulin.
1030–1700 Group psychotherapy and individual therapies in afternoon.
Autobiography in evening.
2000 Seconal or Nembutal if necessary.
Seventh treatment day:
0700 Phenobarbital.
0700 Insulin.
Final evaluation in afternoon.

Electroshock.—Electroshock apparatus was available only to the neuropsychiatric hospitals until an additional supply arrived early in 1945. Colonel Thompson requested official permission to use electroconvulsive therapy in June 1943.[12] In his requisition for the necessary equipment,[13] he designated the 36th Station Hospital (NP) as the first hospital authorized to carry out the electroshock treatment. According to a directive[14] from the Surgeon General's Office, convulsive therapy could be used in psychotic conditions with a poor prognosis. Electroshock therapy was also used, with good results in anxiety and depressive states that did not respond to other therapies. In the neurosis centers, not infrequently, patients would arrive with psychotic symptoms. One group with bizarre confusion, hallucinations, paranoid trends, and catatonic states appeared to be schizophrenics. Another group with self-accusatory delusions, thoughts of suicide, agitation, and depression appeared to be manic-depressives. Electroshock therapy consistently brought about a disappearance of symptoms with good insight. Under those conditions, the discharge diagnosis was usually not that of psychosis.[15]

Psychological Therapies

Discussion of psychological therapies cannot be exact. For example, reassurance and suggestion and persuasion, in varying degrees, were used by all members of the staff and even by patients themselves, whenever appropriate.

Suggestion and persuasion

Electrical aids.—The use of electrical apparatus in suggestive therapy requires some explanation. Its effect through suggestion was always recognized by the therapist. It was never used in a painful or punitive

[12] Letter, Senior Consultant in Neuropsychiatry to Director of Professional Services, Services of Supply, European Theater of Operations, U.S. Army, 13 June 1943, subject: Shock Therapy in the Treatment of Psychiatric Conditions.

[13] Letter, Senior Consultant in Neuropsychiatry to Director of Professional Services, Services of Supply, European Theater of Operations, U.S. Army, 28 June 1943, subject: Requisition for Medical Apparatus.

[14] Circular Letter No. 88, Surgeon General's Office, U.S. Army, 23 Apr. 1943.

[15] Such cases were termed "pseudopsychoses" in the Mediterranean theater, where similar results were obtained with electroshock therapy.—A. J. G.

manner, as the Germans did in the so-called Panza treatment in World War I. Electrical apparatus was used almost entirely for the relief of hysterical symptoms. Other methods were used much more frequently; often, only direct suggestion was needed. For a time when the 130th General Hospital (NP) was receiving mostly medical and surgical cases, many patients with the diagnosis "cold injury" (trenchfoot) were admitted. Quite a number were considered to be hysterical conditions, and the symptoms were relieved by suggestive therapy supported by electrical current in light application.

Hypnosis.—Hypnosis alone was sometimes used in the treatment of hysterical symptoms but more frequently was employed with Pentothal Sodium. Pentothal given with a few suggestive words often readily produced a hypnotic state.

The use of Pentothal Sodium in this manner was encouraged because it seemed to be a regular medical procedure without mysticism, and the technique was more readily accepted and learned by medical officers.

Reeducation

Reeducation probably resulted, to some degree, from all individual discussions the patients had with psychiatrists, nurses, chaplains, Red Cross workers, and others. It occurred, too, in group discussions, orientation lectures, and information and education activities.

Group psychotherapy was placed under the heading of reeducation because, for the most part, it was primarily a learning process. Not infrequently, however, the group leader permitted the discussion to reach a point where there was considerable venting of anger, hostility, and even anxiety, which in some measure was considered an emotional catharsis. In practically all groups, some socialization or group identification developed. For the soldier, such identification was extremely important, for as a hospital patient he was lost to his original group and needed new, if only temporary, support from another group.

Considerable time was spent in the group psychotherapy sessions in explaining the emotional origin of symptoms—especially the physiological accompaniments of anxiety. This usually led to a discussion of fear, a timely topic in any army where the attitude is often expressed that a brave soldier has no fear.

The basic purposes of group psychotherapy, as formulated originally by Colonel Loeser, at the 36th Station Hospital (NP), were as follows:

1. To assist the patient to develop insight and understanding.
2. To develop and modify group morale.
3. To provide a satisfactory outlet for personal expression, ventilation of conflicts, and discussion of personal problems.
4. To provide a background for individual psychiatric interviews.
5. To provide a group with whom the patient may identify.

Outlines for group psychotherapy were drawn up early in 1943, at the 36th Station Hospital (NP). This method of therapy quickly became accepted. Some psychiatrists in general hospitals also developed this treatment method. In developing techniques for group therapy, only a general outline was followed, for adherence to a rigid format would have defeated the real purpose of the procedure. The group leader developed his own techniques for guiding discussions and for keeping the discussion and meeting from getting out of bounds.

Practically all patients in special neuropsychiatric hospitals attended a series of 10 or 12 sessions of group psychotherapy. Each meeting lasted about an hour. The very dull soldier or the soldier with a persistent hysterical symptom was usually excluded. At times, it was possible to assemble groups of soldiers who had similar symptoms, but this selection had no apparent advantage. The ideal size of a group was from 12 to 15 patients, but sometimes the group had to be expanded to 20. With distinct time limitations for individual psychotherapy, the group method was a most valuable and welcome development. Some psychiatrists thought it was as valuable as the individual approach. Of more than 500 patients so treated, less than 10 percent required further psychotherapy before returning to duty.

Assigned reading as part of the reeducation program was used as far as supply of appropriate reading material permitted. Frequently, privately owned books and pamphlets were contributed, and a small library for this purpose was gradually built up. The material presented in this way was often brought up in individual or group conferences.

Individual psychotherapy

Obviously, in time of war, adequate individual treatment cannot be carried out for the majority of patients. One to three interviews, each not over one-half hour, were all that a psychiatrist could give most of his patients. In neuropsychiatric hospitals, a special ward or service was set aside for more intensive individual attention to patients who did not respond to other forms of therapy. However, only a small proportion of the psychiatric patients received prolonged and intensive psychotherapy. Psychoanalytic techniques could not be carried out, but psychoanalytic principles were recognized and applied in therapy at the conscious level and in abreaction.

Abreaction.—The use of hypnosis or Pentothal Sodium to resolve hysterical manifestations has been mentioned under suggestive therapy. This was individual psychotherapy, but the results were usually accomplished in one session so it was only one phase in the total therapy of the individual. The same methods were used to produce a very suggestible state in which the patient brought forth repressed material and relived painful

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emotional experiences. This so-called abreaction was often a shortcut in psychotherapy, and the material produced was used in subsequent therapeutic sessions. The process of abreaction itself, in giving vent to vivid emotional expression, was of considerable value.

Hypnosis alone was preferred for this process by a few psychiatrists who were skilled and experienced in such a technique. Most of the therapists used and preferred intravenous Pentothal to induce hypnosis. Sodium Amytal was used occasionally, and at the 130th General Hospital (NP), ether inhalation was found satisfactory in certain selected cases. Some British psychiatrists tried nitrous oxide, but this method had not gained acceptance by the end of the war. It can be stated that Pentothal was the drug best suited for use.

The procedure for the intravenous administration of Pentothal was explained in detail to the patient before starting the injection. Also, a dose of $\frac{1}{150}$ grain of atropine was given just as was customary before Pentothal anesthesia. The standard solution of Pentothal (usually 10 percent) was injected at the rate of 2 cc. per minute, and usually, the desired result was obtained with 10 to 20 cc. This was manifested by drowsiness and thickness of speech. During the injection, the therapist conversed with the patient to increase the therapeutic relationship and to judge the effect of the drug.

When the injection was completed, the therapist, with suggestion, turned the conversation to some battle experience selected from the history and talked in the present tense. Usually, the therapist acted the part of a friend, who was present at the time. Imitation of battle noises helped to "set the stage" but were not always necessary. Frequently, the patient relived the entire experience or experiences in a very realistic manner, and gave full expression to the proper emotions. Sometimes, it was necessary for wardmen to prevent the patient from rolling off the table.

Much of the material produced had to do with the immediate battle situation, which not infrequently led to associations with earlier relationships and experiences. So often, the climax or the breaking point came when the patient lost his immediate leader or a friend on whom he was in some way dependent. Often, this close associate reminded the patient of his father, older brother, or someone from earlier life upon whom the patient had been dependent or who occupied some position of authority. Emotional reactions of grief were intermixed with hostility and guilt. The therapist often had to probe for essential details of significant episodes and then would sometimes uncover actions or attitudes that were the source of profound guilt. Repetition of the abreaction process two, three, or more times was necessary in some cases.

Abreaction was used in anxiety states, reactive depressions, and hysterical conditions. It was part of the total psychotherapeutic approach and was particularly useful in removing amnesia. At first, it was found that amnesia, as well as other hysterical symptoms, was easily resolved, but then the

patient went to sleep and upon his awakening, the symptoms or residuals would be present. It was obvious that the abreactive process had not been "integrated" with reality. At the 312th Station Hospital (NP), it was suggested that the hypnoidal state be made as light as possible and that the patient be kept awake as the Pentothal effects wore off. This was done, and the situation was reviewed continuously as the patient came out of the effects of the drug. In this way, the amnestic period was "tied into" reality, and there was no further retention of symptoms.

Mention must be made of a special technique in this therapy developed by Maj. Howard D. Fabing, MC, at the 130th General Hospital (NP). It resulted from his work with cases of so-called blast syndrome. Major Fabing found that by using Pentothal hypnosis a patient who claimed to have been rendered unconscious for some time by a nearby explosion could regain his memory for the entire period of "unconsciousness." Under Pentothal, the patients would reconstruct in the fullest possible detail the history of the entire period from just before the explosion until they "came to in an aid station," as they so often reported. The history, as given, was written by the nurse. While the patient was still under Pentothal, Major Fabing would suddenly and dramatically reproduce the situation with battle noises, as though the patient was still in the midst of combat. When this experience had been relived in detail, an injection of 10 cc. of Coramine (nikethamide) was given and the patient was awake in less than a minute. Immediately, Major Fabing reviewed all details of the material which had just been recovered. In the following few hours, this review was repeated with a special wardman who had participated in the drama, and the patient wrote his own account of the episode.

Sometimes, two or three such sessions were needed, especially if key situations were not reached in the first attempt. Usually, by the following day, symptoms (particularly headache) had disappeared. Sensitivity to noise was the most resistant symptom. Of the patients so treated, 90 percent returned to duty.

Autobiographical study.—Another technique used in individual psychotherapy was the autobiographical study. The history, as written by the patient, was discussed in individual conferences. A suggestive outline was provided, and it was found that almost all patients cooperated with great interest. It was a timesaving method, and patients appeared to benefit from it.

Accessory Treatment Methods

Standardized routine and discipline.—Routines for treatment and various activities were posted or distributed so that patients and staff knew what was expected. This tended to eliminate confusion in the hospital atmosphere. Rather strict military discipline was maintained, the example

being set by the staff as a constant reminder to the patient that he was a soldier.

Occupational therapy.—Occupational therapy, in the strict meaning of the term, was not employed. The table of organization for the hospital units contained no position for a recognized or fully qualified occupational therapist. A directive by the Chief Surgeon [16] limited the use of occupational therapy to convalescent hospitals. In other hospitals, it was to be considered only as amusement and recreation.

However, the "mental rehabilitation" hospitals were, in a way, convalescent hospitals, as were the physical rehabilitation centers. The Red Cross provided what materials and tools were available, along with supervision and instruction. The Red Cross shops had much of the hobby aspect, but patients were occupied in pursuits that were interesting to them, and constructive. Work details in the hospital installations could be classed as occupational therapy. Staff members, skilled in such trades as carpentry, roadbuilding, and bricklaying, guided such work. Patient musicians made up most of the hospital orchestra. As has been stated, at the 36th Station Hospital (NP), a garage and a post exchange facility were built by the staff and patients. Most of this "occupational therapy" occurred after the patient was placed in the rehabilitation section where he was prepared to resume his occupation of being a soldier.

Recreational therapy.—Recreational therapy constituted much of the functions of the Red Cross. The Red Cross clubrooms furnished a wide variety of diversions. Motion picture shows at least twice a week and an occasional U.S.O. (United Service Organization) show were always attended by capacity audiences. All psychiatric hospitals had sufficient grounds for adequate athletic fields, and without too much urging, there was good participation in athletic activities. The 96th General Hospital (NP) constructed an ample gymnasium from salvage as an "occupational therapy" project.

Physiotherapy and exercise.—Physiotherapists played an important role in the treatment program for practically every patient. Scheduled periods in the physiotherapy department came while the patient was in the treatment section. "Body building" exercises and relaxation procedures were routine. Special attention was given to postural defects or any other specific handicap. Hydrotherapy apparatus was not available, but wetpacks were used occasionally. Outdoor setting-up exercises and hikes were a part of the program. Military drill, as well as athletics, was considered as part of this program.

Social and welfare therapy.—Social and welfare therapy cannot be separated distinctly from the total treatment program. Red Cross workers

[16] Letter, Chief Surgeon, European Theater of Operations, U.S. Army, to Surgeons, All Base Sections, and Commanding Officers, All Station and General Hospitals, 30 June 1945, subject: Occupational Therapy in Station and General Hospitals.

and chaplains oriented and coordinated their functions so that they were part of the therapeutic team. At least one Red Cross worker in each unit was a trained social worker who adjusted her skills to the military situation in a theater of war. The value and importance of the roles played by the chaplains cannot be overstated. Group discussions under the direction of the information and education officer played an important part in the reeducation or the reorientation of patients. Other staff members, officer patients with special skills or experiences, and even selected visitors often contributed to these sessions.

One of the most important factors in the entire treatment program was the rehabilitation section, a distinct entity in each neuropsychiatric hospital. Patients "graduated" from the treatment section and then moved (usually some distance) to the rehabilitation section.

The foregoing account of treatment describes the various procedures in the setting of the specialized neuropsychiatric hospitals. With minor modifications, essentially the same methods and total programs were used in all general and station hospitals. The modifications depended largely upon the special skills, interest, and experience of the particular psychiatrist in charge of the neuropsychiatric section and, at times, upon the commanding officer of the hospital. In some instances, where the flow of patients was not so large, treatment was more individualized. Rehabilitation programs for neuropsychiatric patients were usually independent of those for the other hospital services, but sometimes, they were partly mixed or completely combined. In a few instances, a neuropsychiatrist was in charge of all rehabilitation for a hospital.

Special mention must be made of the treatment program which was developed at the 96th General Hospital (NP). Although it was officially a "holding" hospital for psychotic patients and patients with other serious mental conditions, who could not be reclaimed for any type of military service, intensive therapy was applied in all cases. Not all the patients were unreclaimable (only about one-third were in the major mental disorders), and the return-to-duty rate among the minor reaction types was excellent. Of special interest was the treatment of psychotic patients. This was accomplished to give these patients every advantage of early treatment—to render them more manageable in the hospital and on the hospital ship and to return them to the Zone of Interior in a state of remission if possible. In the first few weeks before the personnel were adequately trained and before shock therapy was instituted, the destructiveness of some patients was considerable. Afterward, the presence of a disturbed noisy patient was unusual and only temporary. For the psychotic patients, both electroshock and insulin shock therapy and sometimes a combination of the two were used.

Electroshock apparatus became available for a few general hospitals

around the first part of 1945. Insulin therapy in the general hospitals was limited almost entirely to the subshock type of treatment.

As to treatment of psychiatric casualties in the field army facilities, many of the methods previously mentioned were used in modified or abbreviated form. Shock therapy was not used, and the time limit precluded the use of insulin subshock treatment. The first opportunity for treatment was at the battalion aid station. (In a few instances, psychiatric casualties were collected at a designated regimental aid station, but this was definitely an exception to the usual procedure.) For the soldier who was not too psychologically disorganized, the battalion surgeon gave a quick interpretation of the symptoms with definite reassurance as to recovery after a brief rest and nourishment. Frequently, it was not too difficult to find a tent or house near the aid station where a small number of these patients could be held overnight; sometimes they were held in the kitchen area. Sodium Amytal (6 to 9 gr.) was prescribed to assist in obtaining a good night's rest. Provision of at least two hot meals could be managed. Of considerable importance to the soldier was the chance to wash, shave, "dry out," and really get warm.

There were many emotional or psychological factors in the treatment situation that had meaning to the soldier. The very presence of understanding help and treatment so far forward in his own unit had its effect. The soldier knew that the medical officers and the corpsmen of the same organization, with the same shoulder insignias, were sharing the violence of combat, and this helped maintain identity with the group.

The tactical combat situation, at the moment, dictated to some extent how many psychiatric casualties could be held for treatment at this forward level. Much of the decision, though, depended on the attitude of the medical officer or commanding officer toward this problem. The two extremes were the "hard-boiled" attitude and the lenient attitude. Viewpoints shifted with experience, and in time, the majority of officers arrived at an attitude appropriate to the situation. The medical officer in combat had to keep in mind at all times the military mission of conserving manpower. He knew that too much leniency in evacuation would lead to a considerable exodus of soldiers who, with a little rest and treatment, could be returned to effective duty.

How many men were treated at the level of battalion aid stations and returned to duty cannot be ascertained because, in combat, records of such treatment were not kept. Many division surgeons and battalion medical officers estimated that from 40 to 50 percent of the psychiatric casualties were so handled.

If the symptoms continued after the simple treatment just described, a diagnosis of "exhaustion" was entered on the EMT (emergency medical tag), and the soldier was evacuated—often under sedation—to the clearing station. Sedation (Sodium Amytal, 6 to 9 gr.) during this process not only

rendered transportation easier and made the patient more comfortable but, also, was the beginning of treatment for the evacuated patient. It was generally agreed that patients arriving at the clearing stations under sedation were in much better condition than those evacuated without it. Also, it appeared that fixation of symptoms was prevented to some extent.

At the clearing station, the patient came under skilled neuropsychiatric care. Further triage was the first duty of the division neuropsychiatrist. Patients suitable for treatment at the clearing station could be held from 2 to 4 days in ward tents, separate from the wounded and the sick. For the majority of patients so held, sleep during the first 24 to 36 hours was insured to the extent that the patient slept through the night and had long naps during the following forenoon and afternoon. Again, Sodium Amytal was used. Due attention was given to nutrition. When possible, individual psychotherapy on a superficial or symptomatic basis was employed, and group discussions were held. Hysterical symptoms usually responded readily at this level to suggestive therapy, with or without the aid of drugs. At least one additional day was given to occupation about the wards, recreations, physical conditioning, and group activities.

In a few divisions, a more prolonged rehabilitation program with the aid of, or under the direction of, line officers was established. Sometimes, these activities were carried out at some distance from the clearing station, and the psychiatric patients participated in additional combat training with patients who were being rehabilitated for return to duty after recovery from disease or injury. This plan was not generally adopted, although it had its merits.

All psychiatric patients who could not be treated or who could not be returned to duty at the clearing station were evacuated (fig. 35), under sedation if indicated, to the army exhaustion centers. An exception to this arrangement existed in the Third U.S. Army where an equivalent neuropsychiatric service was maintained in evacuation and convalescent hospitals. In the army exhaustion centers, patients could be held longer (7 to 10 days) and the treatment—especially the rehabilitation program—could be more thoroughly carried out. Usually, sedation lasted 48 hours. There was more time to employ abreaction, especially in amnesias and the more severe anxiety states. More systematic use of group psychotherapy was possible. Modified insulin therapy was not generally used. At this level, Red Cross workers and facilities came to be used in the rehabilitation activities. In the neuropsychiatric hospitals, at least one ward was set aside for special study and individual treatment of the more refractory conditions. In the exhaustion centers, the "back to duty" atmosphere was maintained.

Statistics reveal that the neuropsychiatric services in the rear of battalion aid stations in all armies returned approximately 60 percent of psychiatric patients to duty. Leaving out the unknown figure for aid stations, this meant that of 100 psychiatric patients who reached clearing station level, 40 were evacuated from the field army area. Of these 40, 30 (or

FIGURE 35.—Patient being moved into the 43d Hospital Train, Aachen, Germany, February 1945.

75 percent) were returned to duty by neuropsychiatric services in the communications zone, leaving 10 of the original 100 for evacuation to the Zone of Interior.

The saving in manpower through neuropsychiatric treatment can be illustrated by comparing neuropsychiatric treatment with treatment for other conditions. The First U.S. Army, for a period of 19 weeks (D-day to 13 October 1944), reported the percentage of dispositions in relation to admissions as shown in table 28.

TABLE 28.—*Disposition of admissions and cause of disposition, First U.S. Army, 5 June–13 October 1944, inclusive, in percent*

Cause	Returned to duty	Died	Evacuated	Unknown	Total
Wounded	9.0	3.5	84.5	3.0	100.0
Neuropsychiatric diseases	58.0	[1] .0	39.8	2.2	100.0
Other diseases	54.2	.1	39.3	6.4	100.0
Nonbattle injuries	36.2	.7	47.7	15.4	100.0
All causes	27.2	2.1	66.6	4.1	100.0

[1] Indicates a rate of less than 0.05.

CHAPTER IX

Neuropsychiatry at Army and Division Levels

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There were five U.S. armies in the field in the European theater before V–E Day. Each army had a consultant in neuropsychiatry on the staff of the army surgeon. No corps neuropsychiatrists existed as in the British Army, but a neuropsychiatrist was assigned to each division. The consultants in neuropsychiatry in the field armies were as follows:

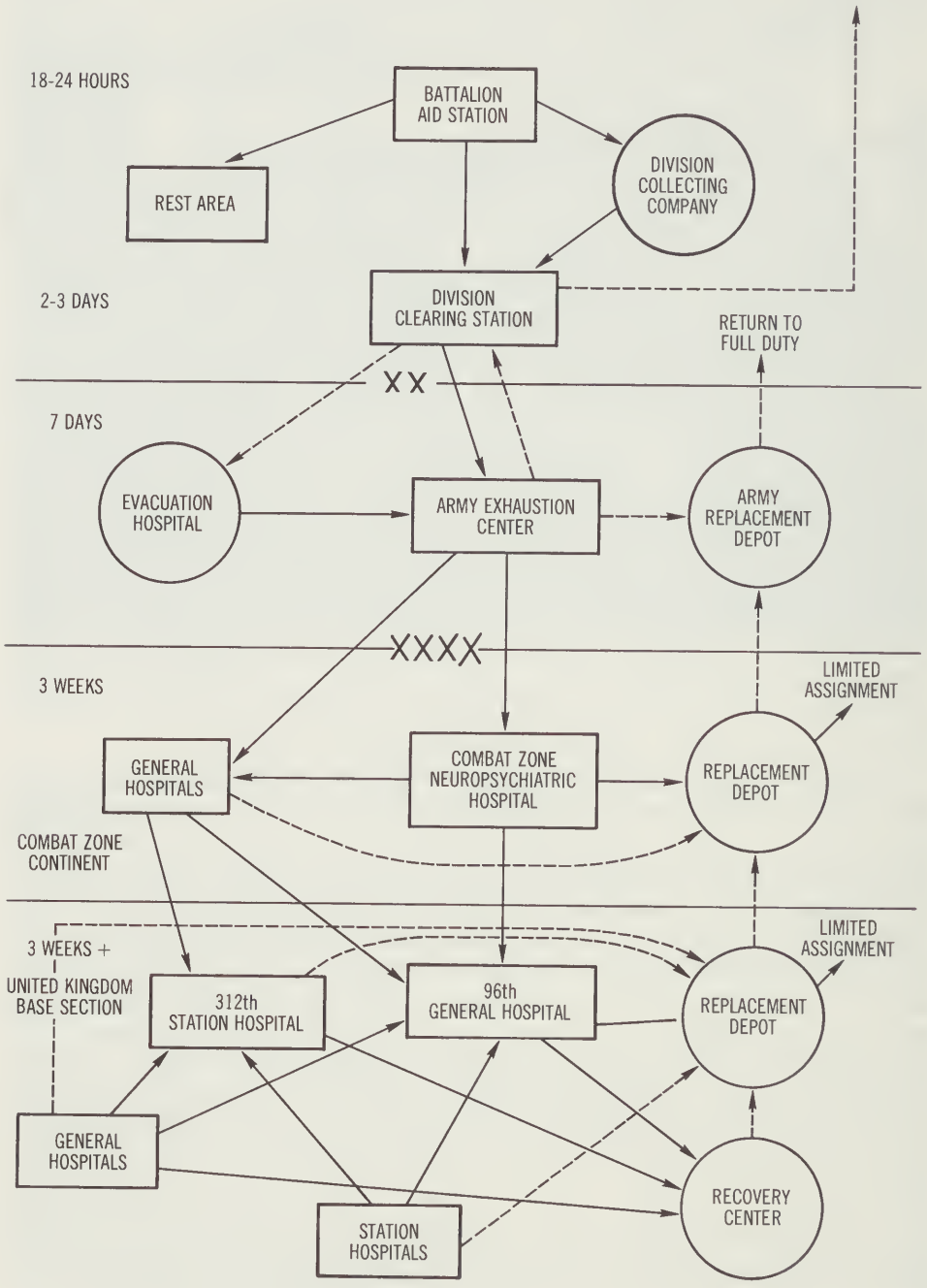
First U.S. Army	Lt. Col. (later Col.) William G. Srodes, MC
Third U.S. Army	Lt. Col. Perry C. Talkington, MC
Seventh U.S. Army	Maj. Alfred O. Ludwig, MC
Ninth U.S. Army	Lt. Col. (later Col.) Roscoe W. Cavell, MC
Fifteenth U.S. Army	Lt. Col. Joseph S. Skobba, MC

In four of the armies, psychiatrists were withdrawn from evacuation hospitals and placed in "exhaustion centers." These centers were provisional organizations, usually having a clearing company as the fundamental unit. They served as "neurosis hospitals" under army control and received psychiatric casualties from division clearing stations. The Third U.S. Army maintained neuropsychiatric services in evacuation hospitals, with additional neuropsychiatric facilities in a convalescent hospital.

There was considerable variation among the armies in preparation time, type of combat, and total time in combat. Moreover, divisions and even corps were sometimes shifted from one army to another so that the final composition was quite different from the original organization. The First U.S. Army was the pioneer unit which was engaged continuously from D-day (6 June 1944) to V–E Day (8 May 1945), and participated in some of the most difficult fighting of the war. The Third U.S. Army came into action in the first part of August 1944, participating in the breakthrough at Avranches, France. For a considerable share of the time, theirs was a warfare of movement. On 15 August 1944, the Seventh U.S. Army, a veteran organization from Italy, invaded southern France. In September 1944, the Ninth U.S. Army became active on the northern portion of the battleline. It was not until the spring of 1945, that the Fifteenth U.S. Army joined in combat.

The function and location of psychiatry at army and division levels are illustrated in chart 2, which shows the organization of neuropsychiatric services in ETOUSA (European Theater of Operations, U.S. Army).

CHART 2.—*Diagram of neuropsychiatric treatment organization in the European Theater of Operations, U.S. Army*



Section I. First U.S. Army

Lloyd J. Thompson, M.D.

The activities of the neuropsychiatric service of the First U.S. Army for 1944 were divided into three phases: the planning phase, the training phase, and the operational phase.[1]

PLANNING PHASE

The plan for the operation of the neuropsychiatric service of First U.S. Army at the battalion aid station, the division clearing station, and the army levels was derived from reports and circulars pertaining to neuropsychiatry in other theaters of operations, particularly from a report by Col. James L. Snyder, MC, Headquarters, First U.S. Army, of the methods used to triage and evacuate psychiatric casualties by the Fifth U.S. Army in Italy. As a basis for planning purposes, the number of psychiatric casualties estimated for the first 30 days of combat was placed at 2,500 to 3,000 for a 10-division army.

At battalion aid station level.—The battalion surgeons were to conduct a triage at the battalion aid station and, in keeping with the tactical situation, were to hold mild cases for treatment within the battalion or regimental area at some designated point (kitchen area, collecting company). More severe cases were to be evacuated to the division clearing company without delay.

At division clearing station level.—The division psychiatrist operating at the division clearing station was to examine all psychiatric casualties admitted and retain for treatment, at this station, cases which offered favorable prognosis for return to duty within 72 hours. All other cases were to be evacuated.

At the army level.—The neuropsychiatric service was to be taken out of the evacuation hospitals at the army level, and concentrated in installations called "exhaustion centers." The removal of the neuropsychiatric service from the evacuation hospitals and the concentration thereof in these centers were done to—

1. Avoid possible congestion at the evacuation hospital.
2. Make available more beds for surgical patients.
3. Reduce the danger of "infecting" lightly wounded individuals with neuropsychiatric symptoms.
4. Allow for standardization of treatment.
5. Provide facilities for special procedures desirable in treatment of neuropsychiatric cases, but not necessary for surgical cases.

[1] Unless otherwise indicated, this section is based on "Annual Report of Medical Activities in First U.S. Army, 1944."

6. Eliminate the possibility of having neuropsychiatric cases crowded out of evacuation hospitals by a rush of surgical cases.

The Surgeon, First U.S. Army, designated the 622d Clearing Company of the 134th Medical Group to act as the neuropsychiatric treatment unit; that is, to operate the exhaustion center, either as a single unit or as two units of platoon size, as indicated by the course of the action.

This company was to be issued sufficient additional equipment, such as tents, cots, stoves, and bath units, to provide 500 beds (250 in each platoon).

Additional personnel were to be attached to the 622d Clearing Company in keeping with the planned increase in capacity as well as with the specialized mission given to this unit. Each evacuation hospital was to supply one psychiatrist and two enlisted technicians, and each medical group was to provide eight enlisted men as cooks and medical technicians. The total planned increase in personnel for the 622d Clearing Company was from eight to 10 psychiatrists and 40 enlisted men.

The First U.S. Army evacuation officer arranged to have psychiatric patients evacuated directly from the division to the exhaustion center, bypassing the evacuation hospitals. G–1 (personnel), First U.S. Army, approved a recommendation which provided for the return of successfully treated patients from the exhaustion center directly to the division clearing station, thereby avoiding unnecessary delay in the return to duty which was incident to the use of the replacement system for this purpose.

By arrangement with the First U.S. Army quartermaster, sufficient clothing and equipment, exclusive of arms, were to be kept at the exhaustion center so that patients being returned for duty would report to the divisions fully equipped. Patients returning to duty with the division from exhaustion centers were to be transported in vehicles of the medical groups.

TRAINING PHASE

For division medical officers.—From November 1943 to April 1944, inclusive, the 312th Station Hospital (NP), Shugborough Park, England, conducted a series of 7-day orientation courses in military neuropsychiatry for representative unit medical officers, particularly battalion and regimental surgeons of combat units.

For evacuation hospital personnel.—The psychiatrist, two nurses, and six enlisted technicians from each evacuation hospital attended a 2-week course in military neuropsychiatry given at the 312th Station Hospital (NP).

For division neuropsychiatrists.—On 9 November 1943, WD (War Department) Circular No. 290 authorized the position of division neuropsychiatrist. However, the divisions in the First U.S. Army, as of 1 January 1944, had arrived overseas before this circular went into effect and, con-

sequently, had no psychiatrists assigned as such, nor were surplus psychiatrists available. Therefore, each division was directed to appoint one of its medical officers to serve in this capacity. The officer so appointed was to be a well-qualified physician and, as far as possible, experienced in field medical service. Previous training and experience in psychiatry were desirable but not mandatory. For these officers, the 312th Station Hospital (NP) provided a 1-month course in military psychiatry.

Each division in the First U.S. Army sent the medical officer designated as division psychiatrist to the course given in January 1944. An additional medical officer from each of the divisions attended the second course in February 1944.

For line officers.—The commanding officer (a psychiatrist) of the 312th Station Hospital (NP) gave a series of orientation talks on combat exhaustion to line officers of the 28th and 29th Infantry Divisions during October and November 1943. Several other divisions arranged for medical officers who had completed the course in military neuropsychiatry at the 312th Station Hospital (NP) or the division psychiatrists to talk to line officers on the subject.

For exhaustion center personnel.—Although the 622d Clearing Company was designated to act as the neuropsychiatric treatment unit for the First U.S. Army, it had had no previous experience in caring for neuropsychiatric casualties. Therefore, the psychiatrists of the 45th and 128th Evacuation Hospitals were directed to give a series of lectures on military neuropsychiatry to the officers and men of that company. On 24 April 1944, they started a 6-week training course in military neuropsychiatry, consisting of lectures, field demonstrations, and actual case study. The latter was made possible when nearby station and general hospitals arranged clinics for this purpose. During the training period, a standing operating procedure was drawn up, and a station was set up in the field and personnel assigned to sections in which they were to work during the actual operation of the exhaustion center.

OPERATIONS

In the buildup of the neuropsychiatric service during the development of the Normandy beachheads, three phases were contemplated: initial, intermediate, and final.

Initial Phase

The initial phase (D-day to D+4–5) included the period during which only division medical units were in operation. In line with the experience gained in the campaigns in North Africa and Sicily, a low incidence of neuro-

psychiatric disabilities was anticipated for the first 3 or 4 days of the operation, as shown in table 29.

Based on this estimate of low incidence, it was planned to evacuate to the United Kingdom all the psychiatric casualties sent to the rear of divisions, at least until the evacuation hospitals became operational. A slight deviation from this plan resulted from a misunderstanding in the Utah Beach sector, where it was believed that the total evacuation policy did not apply to "combat exhaustion" cases. As a result, about 300 neuropsychiatric cases accumulated in the sector on D+7–8. Many of these casualties were transferred to the 42d Field Hospital which was neither adequately staffed nor properly equipped to receive them. From the 42d Field Hospital, the psychiatric casualties were transferred to the beach medical installations and then back to field hospitals or to a clearing station. To meet this problem, the VII Corps surgeon designated the 649th Clearing Company, a corps unit, to act as a holding unit for psychiatric casualties, most of whom were ultimately evacuated to the United Kingdom, and a few admitted to the 622d Clearing Company Exhaustion Center when it opened on 19 June 1944.

TABLE 29.—*Admissions for neuropsychiatric disabilities and disposition of neuropsychiatric casualties, First U.S. Army, 6–10 June 1944*

Date	Total neuropsychiatric casualties	Returned to duty	Evacuated to United Kingdom
D-day (6 June)	0	0	0
D+1 (7 June)	4	0	1
D+2 (8 June)	10	1	2
D+3 (9 June)	12	1	12
D+4 (10 June)	47	2	41

Intermediate Phase

The intermediate phase included the period before the opening of the exhaustion centers, during which some evacuation hospitals were in operation. The 128th Evacuation Hospital opened on D+5 (11 June) and received 25 or 30 neuropsychiatric patients. However, because the hospital rapidly became greatly overcrowded by the admission of surgical cases, it was necessary to close out the neuropsychiatric service and evacuate the patients to the United Kingdom before indicated treatment could be completed. A similar experience occurred in the 91st, 41st, and 5th Evacuation Hospitals.

Final Phase

The final phase began with the opening of the exhaustion centers. This implemented the final plan of the First U.S. Army neuropsychiatric services which included operations at the battalion, the division, and the army levels.

Battalion aid station level.—As the first officer to come in contact with casualties—surgical, medical, or psychiatric—the battalion surgeon was the most advanced element of the neuropsychiatric service. This officer did much toward prevention of "combat exhaustion" by early recognition and treatment, for 24 to 36 hours, of mild or incipient cases. Although the place of treatment varied, the mild cases selected for treatment were held in the vicinity of the aid station, in the kitchen area, or, in some instances, at the collecting company. Of course, the tactical situation determined the place and the length of time for treatment. Treatment consisted of sedation, hot food, a chance to clean up, and the surgeon's explanation of symptoms and reassurance of a favorable outcome.

Division clearing station level.—The division psychiatrist was responsible for the triage and treatment of psychiatric casualties at the clearing station and for maintaining liaison with medical officers of forward elements on matters of psychiatry. The psychiatrist at the clearing station level could accomplish more than one at a rear medical facility, particularly in the prevention and treatment of all except the severe reactions. He could materially assist in the preparation of the division for combat by eliminating those soldiers who were obviously mentally unsuited for combat. In combat, he was recognized by the casualty as "one of the family" and, as such, could reinforce the soldier's identification with his unit.

The psychiatrist knew the traditions and previous combat performance of the division, and something of the tactical situation, so he could understand much of the causation of emotional breakdown in combat. In some instances, he knew the personalities of the officers involved and could deduce the reasons for the reactions of the men they led. Because of a previous favorable relationship with the command, his recommendations for measures of preventive psychiatry bore considerable weight. By a practical approach to problems, adaptability to military requirements, and commonsense recommendations, division psychiatrists convinced line officers that they had a real contribution to make toward the success of military operations. Line officers often came to recognize the psychiatrist as a valuable staff officer, not merely an exponent of a school of abstract thought.

Initially, psychiatric patients who would require more than 72 hours of treatment were not to be kept at the division level. It soon became apparent, however, that in many instances another 24 to 48 hours were required to achieve the best results. Treatment, in general, was along lines as previously described. Usually, some attempt was made to provide physical reconditioning. Sometimes, Sodium Pentothal (thiopental sodium) hypnosis was used, but this procedure was usually reserved for use at the army level.

Early in the campaign, all division psychiatrists functioned at the division clearing stations, where, as a rule, one or two ward tents were set aside for psychiatric casualties and two or three enlisted technicians were assigned as assistants. This worked out satisfactorily in combat situations

which were relatively slow moving and where the incidence of casualties was not overwhelming.

After 3 or 4 weeks' experience, however, several divisions, notably the 29th, 35th, 83d, and, later, the 9th, 28th, and 30th Infantry Divisions, on their own initiative, established separate installations for the care of the combat exhaustion cases. Occasionally in the 9th, 28th, and 29th Divisions, such separate neuropsychiatric installations operated in conjunction with a casual company in the division rear echelon, which was established to receive, equip, and orient replacements. In these three divisions, combat-experienced infantry officers and enlisted men were assigned to assist the psychiatrist, especially in the rehabilitation phase of treatment. This plan worked out well and was believed to be the one of choice because—

1. It provided for holding a greater number of psychiatric casualties within the division, thereby continuing the individual's identification with his unit as a soldier and avoiding the danger of overemphasis of the medical aspects of his condition.

2. It reduced the possibility of overloading the clearing station with this type of patient; also, the installation was not as greatly affected by the tactical situation as was the clearing station, which moved frequently and on short notice.

3. It kept the casualty close to the front.

With combat experience, the divisions themselves found that such separate installations best solved the treatment problem of psychiatric casualties.[2]

Army level—exhaustion center.—The 622d Clearing Company of the 134th Medical Group was equipped and trained to act as a special psychiatric hospital, designated the "exhaustion center." Initially, this company provided two 250-bed exhaustion centers. After a week of operation, it was necessary to assign an additional company (618th Clearing Company) to this mission, because of the large number of psychiatric casualties being admitted. From 1 July to 31 December 1944, two exhaustion centers operated by the 618th and 622d Clearing Companies were available. On several occasions (July and August), additional clearing companies, or their platoons, were attached to either or both of these exhaustion centers to meet sudden increases in the admission rate.

A surgical and dental section was established in the exhaustion center, in addition to the neuropsychiatric section, the major element of the installation. The surgical and dental sections were to provide appropriate care for psychiatric patients and for personnel in nearby units.

The neuropsychiatric section was under the direct supervision of the attached psychiatrists, assisted by the regularly assigned medical officers of the company. Through this experience, some general medical officers

[2] Similar conclusions were reached by veteran division psychiatrists in the Mediterranean theater as a result of extensive combat experience.—A. J. G.

received valuable training and became better qualified to function in psychiatry. The psychiatric service of the exhaustion centers was subdivided into admission, observation, sedation, rehabilitation, and evacuation sections, as follows:

1. Admission.—Each patient was given a complete physical examination to rule out organic disease, and a careful history was taken.

2. Observation.—Patients were admitted to this section if prolonged observation was required or if it was impossible to obtain a history from the patient on admission. All the hysterical paralyses, aphonias, amnesias, and so forth were also placed in the observation section.

3. Sedation or treatment.—The form of therapy used in the treatment section was the maintenance of a sound state of sleep, for a period of 48 to 72 hours, short periods being allowed for the patient to eat, exercise, and have latrine privileges. The drug employed was mainly Sodium Amytal (amobarbital sodium).

4. Rehabilitation.—Patients were admitted to this section from 12 to 24 hours after their last medication on the treatment section. They remained for approximately 72 hours and followed a schedule in which time was allowed for bathing, reequipping, group discussions, close-order drill, calisthenics, organized sports, movies, letterwriting, and religious guidance.

5. Evacuation.—Patients ready for return to duty and those who were to be evacuated out of the Army were sent here to await transportation. Average length of time spent on this section was from 3 to 4 hours.

In addition to the treatment and disposition of patients, the neuropsychiatric service provided consulting service for the Judge Advocate and the Inspector General. The Judge Advocate General's Department requested neuropsychiatric examination on all individuals who were referred for trial by general court-martial. Originally, this work was done by the psychiatrists in the exhaustion centers. Later, however, one psychiatrist did all these examinations, a procedure that proved satisfactory.

A consulting service was carried out for the Inspector General's Department. All officer patients admitted to the exhaustion centers were interviewed by a representative of the Inspector General's Department, together with the psychiatrist in charge of that particular patient. The determination whether or not such officers should be evacuated to the communications zone for further observation and treatment was considered a medical question to be finally determined by appropriate medical authority. The policy of the Inspector General's Department, however, was that incompetence or cowardice must not gain for the officer an assignment safe from danger. Therefore, no officer who exhibited inefficiency and lack of leadership qualities was permitted a less hazardous assignment by reason of his demonstrated deficiencies. The disposition of officers, resulting from the investigation, was either evacuation as a medical casualty or a return to full combat duty. In only three or four instances were court-martial charges made.

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Although the percentage of officers returned to full duty was smaller than that for enlisted men, most of those who returned did fairly well—four were decorated for bravery and at least three were promoted subsequent to their hospitalization.

In general, it was thought that officers who developed neuropsychiatric conditions should not return to frontline positions. As stated, every case was investigated by the Inspector General, except when a definite psychosis or other serious condition required quick evacuation. In the final disposition, the medical judgment had first priority. Because of the time consumed in investigating these cases, it was often necessary to hold officers longer than 10 days.

Evacuation and return to duty.—From clearing stations, psychiatric patients, like any others, were returned directly to duty. Evacuation from clearing stations was directly to the exhaustion center and not to evacuation hospitals. Transportation was provided by ambulance as was transportation of evacuees from exhaustion centers. Patients returned to frontline duty from exhaustion centers went directly to the proper division clearing station and, from there, back to their unit.

SPECIAL PROBLEMS

Blast syndrome.—The question of how many of the symptoms produced by blast were due to organic disturbance and how many were due to emotional factors was brought up at almost every center. Almost nine of 10 psychiatric patients gave a history of having been near exploding shells. They related this event to the onset of symptomatology, some saying that they were blown out of their foxholes by a shell. Many stated that they could not remember what happened for a period of time.

It appeared that there was a danger of attributing too much symptomatology to organic damage and, thereby, reverting to the old concept of "shellshock" of World War I. The general opinion was that, unless there was evidence of damage to the central nervous system as shown by neurological signs, or evidence of blast in other parts of the body as shown by ruptured eardrums, hemoptysis, or other visceral signs, the diagnosis of blast syndrome would not be made in forward areas. Certain other differential points were used, such as evaluation of amnesia which, in organic conditions, is usually retrograde and cannot be fully recovered under Pentothal hypnosis. Further studies of this problem were carried out at the hospitals at the base in cooperation with the senior consultants in neurosurgery.[3]

Physical exhaustion.—Practically all soldiers who were in combat for more than a few days gave a history of having had very little sleep, of eating irregularly and usually inadequately, and of loss of appetite after a few days of K-rations. In military operations, fatigue is a serious factor

[3] Similar conclusions were reached in the Mediterranean theater (p. 17).—A. J. G.

which must constantly be considered. If neglected, it may well be the deciding factor between success or failure of the military mission. As a result of experiences in NATOUSA (North African Theater of Operations, U.S. Army), it was believed that smaller elements of the Army should have an opportunity for rest near the front every week or so, and that divisions should be rested every 4 to 6 weeks for a longer period of time. It was recognized that such plans must depend on the tactical situation, but should always be considered.

Self-inflicted wounds.—With self-inflicted wounds, the patient usually recovered rather quickly, but in each instance, a thorough investigation was conducted. Approximately 300 such cases were investigated at the 4th Convalescent Hospital, but in only 15 instances were charges brought. The psychiatrist cooperated in determining the mental status. It was difficult to obtain exact details of the injury because of lack of witnesses. The general attitude was that these men should be given a chance to return to combat and have the opportunity to vindicate themselves before further steps were taken.

Treatment.—While treatment varied somewhat in various clearing stations and was more extensive in the exhaustion centers, the general principle of carrying out sedation therapy was adhered to and produced good results. When fairly deep sedation therapy was used, the question of nutrition was considered. Some psychiatrists reported that their patients had good appetites and ate large amounts during the 2 days of sedation therapy; in other instances, this was not always true. Since psychiatrists also reported that a large number of wardmen were required to insure that patients ate properly when sleepy, the use of modified insulin therapy in conjunction with sedation therapy was considered. In one exhaustion center, the use of sedative drugs other than Sodium Amytal was tried.

STATISTICAL STUDIES

From 6 June to 31 December 1944, inclusive, 28,475 neuropsychiatric casualties were admitted to the First U.S. Army medical service (division clearing station, evacuation hospitals, and exhaustion centers). This total constituted 11.66 percent of the total admissions for the Army. Table 30 indicates the relationship between total admissions and neuropyschiatric admissions as well as the disposition of such cases, by month. (These figures do not include a sizable group of cases which were treated and returned to duty at the battalion aid station level.)

An analysis of table 30 by months follows.

June.—The relative low incidence of psychiatric casualties during the month of June was due to the following:

1. All divisions in contact with the enemy had excellent morale, were well trained, were accustomed to working as a team, and were fresh.

TABLE 30.—*Comparison of total admissions with neuropsychiatric admissions and dispositions, First U.S. Army, 6 June–31 December 1944, inclusive, by month*

Month	Total admissions (number)	Neuropsychiatric admissions		Disposition of neuropsychiatric cases			
				Returned to duty		Evacuated to rear of the Army	
		Number	Percent of total admissions	Number	Percent of neuropsychiatric dispositions	Number	Percent of neuropsychiatric dispositions
June	33,623	2,049	6.1	644	32.7	1,323	67.3
July	61,549	9,101	14.8	6,296	77.8	1,798	22.2
August	34,235	5,766	16.8	3,661	56.6	2,807	43.4
September	19,620	2,609	13.3	986	35.9	1,760	64.1
October	22,877	1,944	8.5	602	26.8	1,643	73.2
November	33,669	3,560	10.6	1,336	39.3	2,061	60.7
December	38,665	3,446	8.9	1,263	34.5	2,398	65.5
Total	244,238	28,475	11.7	14,788	51.7	13,790	48.3

Source: Annual Report of Medical Activities in First U.S. Army, 1944, p. 135.

2. A definite goal—the establishment of a beachhead—was apparent to all, and although resistance was stiff, initial success could be followed from day to day.

During the early part of the month, all psychiatric casualties evacuated by divisions were sent to the United Kingdom, in accordance with the existing total evacuation policy. Consequently, many patients were evacuated who could have been returned to duty had they been treated within the Army zone.

July.—The marked increase in psychiatric casualties during July was attributed to the nature of the conflict. The beachhead had been established, but the very difficult terrain (hedgerows, flooded areas, and so forth) and the stubborn resistance offered by the enemy (north of Saint-Lô, outside of Carentan; the La Haye-du-Puits action, and Cherbourg) made progress slow. Furthermore, after a month of constant fighting, the initial vim and vigor of the infantryman had been reduced by continued stress of battle.

The sharp increase in the rate of return to duty of psychiatric patients was the result of experience gained by line and medical officers, as well as by psychiatrists, during the preceding weeks; moreover, throughout July, the neuropsychiatric service was fully established and functioning.

August.—The tremendous push required to break through at Saint-Lô, Vire, and La Haye-du-Puits during the last few days of July and the first 10 days of August was responsible for the high incidence of psychiatric casualties of any period during this period (80 percent of the psychiatric casualties for August occurred during the first 2 weeks).

September.—The race across France into Belgium up to the Siegfried Line, from 15 August to 15 September, produced the lowest incidence of psychiatric casualties of any period during the campaign, for obvious reasons. During September, however, the percentage of psychiatric cases returned to duty dropped to about one-half of that for the previous month because lines of evacuation were severely stretched. The division clearing stations were moving so rapidly that very little treatment of combat exhaustion cases could be accomplished.[4] Also, the exhaustion centers were often out of contact with the front or were in the process of moving, so that these installations could accomplish little in the way of treatment; furthermore, during 10 days of this month, a total evacuation policy was in force.

October and November.—The tactical situation during October was largely static, hence the low incidence of neuropsychiatric conditions.

During October and November, the ratio of psychiatric patients returned to duty was influenced by two factors. First, many of the casualties (a large percentage were replacements) showed a very low tolerance for the emotional stress of return to combat duty; also, a number of previously wounded soldiers discovered, upon return to combat duty, that they were "not able to take it anymore." Second, incident to the long-continued action (4–5 months) with proportionally few relief periods, an increased number of previously excellent veteran combat soldiers appeared to be emotionally "burned out" and offered poor prognosis for duty without prolonged rehabilitation, which was not available within a field army.[5]

In November, with increased severe fighting (Aachen, Huertgen Forest, attack on Roer River line), the incidence of psychiatry casualties rose.

December.—The interesting conclusion in reference to statistics for December was that the German breakthrough in the Ardennes region did not produce the high incidence of psychiatric disabilities that could be expected—perhaps because the individual soldier suddenly realized the personal implications of the war to himself. In other words, the conflict changed over from being a "game" to an unpleasant action motivated by hatred. Perhaps, also, many individuals who suffered emotional "blowups" became battle casualties or prisoners of war.

Dispositions, by diagnosis, of neuropsychiatric cases at exhaustion centers during December, were as follows:

Diagnosis	*Number*
Neuroses	16,190
Psychoses [1]	368
Psychopaths	668
Mental defectives	46

[1] Note the characteristically low incidence of psychoses from combat situations.

[4] Here, as in the Mediterranean theater, it is demonstrated that, when combat units are moving rapidly, little treatment can be accomplished by the division neuropsychiatrist. However, only few cases are generated under such circumstances since there is little contact with the enemy. Thus the inability of division psychiatry to operate at this time is of little moment since it is not needed.—A. J. G.

[5] This description is similar to that of the "old sergeant syndrome" (pp. 49–52).—A. J. G.

Diagnosis	*Number*
Other psychiatric	1,763
Concussion	1,240
Epilepsy	46
Other organic	566
Combat exhaustion [2]	386
Total	21,273

[2] These cases were all carried as such because there was no treatment given, owing to the total evacuation policy that was in effect at the time.

RESULTS OF TREATMENT

A survey was conducted to determine the ultimate fate of individuals returned to duty from the First U.S. Army exhaustion centers. Reports received on 708 men, many of whom were returned to duty during July and August, were as follows: Still on duty with their units, 217; killed in action, 21; wounded in action, 84; evacuated for medical disabilities, 108; and evacuated for neuropsychiatric disabilities, 278.

Other information on these men included: Decorations (exclusive of Purple Heart), 30; promotions, 11; commissions, 2; and average time on duty since release from exhaustion center, 4 weeks. Most men with a recurrence of "combat exhaustion" were evacuated within the first 48–72 hours after return to duty.

Several special statistical studies concerning psychiatric casualties were made from time to time (tables 31 and 32). Of particular interest was the period of invasion which lasted from D-day, 6 June 1944, until the Third U.S. Army started its "march" across France near the first of August 1944. The invasion period, however, concerns only the First U.S. Army, which experienced some of the most difficult fighting of the war, continuing until 20 August. The landing operations and the establishment of a beachhead which connected the original beaches with Cherbourg took approximately 6 weeks (map 14). Then, without rest, came the tremendous push required to break through at Saint-Lô, Vire, and La Haye-du-Puits during the last days of July and the first 10 days of August. It was during this last period that the enemy attacked in force at Mortain to break through to Avranches in an attempt to split the beachhead. After this, the First U.S. Army assisted in closing the Falaise-Argentan Gap. It was not until after 20 August that this Army started its race across France and thereby had some measure of relief after 75 days of continuous combat.

Table 33 shows the number of admissions for all causes: neuropsychiatric admissions, returns to duty, evacuations, and neuropsychiatric cases per 1,000 wounded. In this period, between 9 June and 27 October 1944, 57.89 percent of neuropsychiatric admissions were returned to duty (table 34), comparing favorably with the final rate for the First U.S. Army on V–E Day, which was 50.9 percent. It also demonstrates what was accom-

TABLE 31.—*Comparison of total admissions with neuropsychiatric admissions and dispositions, at division and Army levels, First U.S. Army, 6 June–4 August 1944*

Disposition from—	Total admissions (number)	Neuropsychiatric admissions		Neuropsychiatric dispositions							
				Returned to combat duty		Evacuated		Noncombat duty [1]		Total	
		Number	Percent of total admissions	Number	Percent of neuropsychiatric dispositions	Number	Percent of neuropsychiatric dispositions	Number	Percent of neuropsychiatric dispositions	Number	Percent of neuropsychiatric dispositions
Division clearing station	88,512	12,263	13.8	3,528	----	([2])	----	([2])	----	([2])	----
Exhaustion center (Army)	103,913	12,909	12.4	6,567	61.2	3,011	28.1	1,147	10.7	10,725	100.0

[1] Assigned to Quartermaster Battalion.
[2] Data not available.

TABLE 32.—*Diagnostic breakdown of dispositions from exhaustion centers, First U.S. Army, 6 June–1 September 1944*

Diagnosis	6 June–28 July		29 July–1 September		6 June–1 September	
	Number	Percent	Number	Percent	Number	Percent
Neurosis:						
Anxiety	4,137		2,930		7,067	
Anxiety hysteria	133		158		291	
Hysteria	241		355		596	
Reactive depression	98		69		167	
Posttraumatic	17		22		39	
Others	598		1,307		1,905	
Total neuroses	5,224	74.6	4,841	80.2	10,065	77.2
Psychoses:						
Schizophrenia	62		53		115	
Manic depressive	8		17		25	
Others	78		100		178	
Total psychoses	148	2.1	170	2.8	318	2.4
Psychopaths	440	6.3	188	3.1	628	4.8
Mental defectives	18	.3	24	.4	42	.3
Other psychiatric	262	3.7	288	4.8	550	4.2
Concussion	603	8.6	177	2.9	780	6.0
Epilepsy	21	.3	12	.2	33	.3
Other organic	284	4.1	335	5.6	619	4.8
Grand total	7,000	100.0	6,035	100.0	13,035	100.0

plished when the neuropsychiatric services were fully organized and medical officers became experienced in dealing with neuropsychiatric casualties.

The number of wounded in table 33 reflects the flow and ebb of the First U.S. Army's tide of battle. The wounded formed the largest part of all causes for admission. Evacuation of wounded, and the number who died after admission, were higher, and the number of wounded returned to duty was lower than for any other cause for admission (table 35).

From D-day to 30 June, the high numerical incidence peak for wounded was accompanied by a small neuropsychiatric peak. However, there was little relationship to sick and nonbattle injuries because neuropsychiatric admissions increased and decreased with the number of wounded. This positive correlation was further brought out in the period from 30 June to 25 August 1944, when the two trends were almost parallel.

The period (1–19 August 1944) encompassing the time of the Avranches breakthrough and the Battle of the Falaise-Argentan Gap indicates an absolute as well as a relative numerical increase of neuropsychiatric cases which accompanied the rise and fall in number of battle casualties.

MAP 14.—D-day to breakout, 6 June–24 July 1944.

TABLE 33.—*Comparison of neuropsychiatric casualties, admissions, and dispositions, to battle casualties, First U.S. Army, 9 June–27 October 1944, by week*

Week ending—	Admissions					Neuropsychiatric dispositions			
	All causes (number)	Wounded (number)	Neuropsychiatric			Returned to duty		Evacuated	
			Number	Percent of all causes	Rate [1]	Number	Percent of neuropsychiatric dispositions	Number	Percent of neuropsychiatric dispositions
9 June	5,637	5,080	26	0.5	5	2	11.8	15	88.2
16 June	11,652	9,311	616	5.3	66	116	23.7	374	76.3
23 June	9,482	6,433	890	9.4	138	215	26.4	600	73.6
30 June	6,852	3,501	517	7.5	148	311	48.2	334	51.8
7 July	10,102	5,985	1,066	10.6	178	315	44.4	395	55.6
14 July	16,266	10,196	2,465	15.2	242	1,394	76.0	441	24.0
21 July	13,539	6,920	2,428	17.9	351	1,936	82.3	416	17.7
28 July	14,014	8,091	2,073	14.8	256	1,929	83.4	384	16.6
4 August	16,369	9,730	2,828	17.3	291	1,702	78.3	472	21.7
11 August	11,722	7,143	1,979	16.9	277	1,335	57.2	1,000	42.8
18 August	7,545	3,285	1,485	19.7	452	855	47.7	937	52.3
25 August	3,234	882	353	10.9	400	358	43.1	473	56.9
1 September	3,470	1,611	222	6.4	138	188	64.6	103	35.4
8 September	2,819	1,356	95	3.4	70	181	64.4	100	35.6
15 September	3,640	1,681	215	5.9	128	59	41.3	84	58.7
22 September	7,598	3,939	1,503	19.8	382	289	39.8	437	60.2
29 September	3,831	1,280	[2] 611	15.9	477	273	27.3	726	72.7
6 October	5,636	2,352	391	6.9	166	241	41.6	339	58.4
13 October	7,017	3,223	683	9.7	212	157	23.5	510	76.5
20 October	5,515	2,237	513	9.3	229	143	25.8	412	74.2
27 October	3,533	632	322	9.1	509	116	28.6	289	71.4

[1] Rate expressed as number of psychiatric cases per 1,000 wounded admissions.

[2] In a later table, this figure was revised to read 712.

Source: Basic data from consolidation of ETOUSA MD Form No. 323.

An interesting phenomenon is shown in chart 3: the delayed response in neuropsychiatric admissions to the two wounded peaks of 16 June and 14 July 1944, as compared with the immediate response in neuropsychiatric disability to wounded peaks of 4 August and, in particular, of the comparatively small peak in wounded of 22 September. The change over a period of time from a delayed neuropsychiatric response to an immediate reaction to battle conditions suggested the establishment of a "conditioned reflex mechanism," a hair-trigger response to the precipitating factor.

The increase in number of battle casualties and of neuropsychiatric admissions for various periods is shown in table 36. Here, it can be clearly seen that increasing exposure to battle was associated with increasing neuropsychiatric admissions.

TABLE 34.—*Comparison of neuropsychiatric casualties, admissions, and dispositions, to battle casualties, First U.S. Army, June–October 1944, by month*

Month	Admissions					Neuropsychiatric dispositions			
			Neuropsychiatric			Returned to duty		Evacuated	
	All causes (number)	Wounded (number)	Number	Percent of all causes	Rate [1]	Number	Percent of neuropsychiatric dispositions	Number	Percent of neuropsychiatric dispositions
June	33,623	24,325	2,049	6.1	84	644	32.7	1,323	67.3
July	53,921	31,192	8,032	14.9	258	5,574	77.3	1,636	22.7
August	38,870	21,040	6,645	17.1	316	4,250	59.6	2,882	40.4
September	21,358	9,867	2,646	12.4	268	990	40.6	1,450	59.4
October [2]	21,701	8,444	1,909	8.8	226	657	29.8	1,550	70.2
Total	169,473	94,868	21,281	12.6	224	12,115	57.8	8,841	42.2

[1] Rate expressed as number of psychiatric cases per 1,000 wounded admissions.
[2] Through 27 days.
Source: Table 34 data derived from addition of data by month (table 33).

TABLE 35.—*Percentages of dispositions in relation to admissions, First U.S. Army, 9 June–13 October 1944*

Admissions	Returned to duty	Died	Evacuated	Total dispositions
All causes	27.2	2.1	66.6	95.9
Wounded	9.0	3.5	84.5	97.0
Neuropsychiatric	58.0	.0	39.8	97.8
Other diseases	54.2	.1	39.3	93.6
Nonbattle injuries	36.2	.7	47.7	84.6

NOTE.—The entry .0 indicates a rate of less than 0.05.

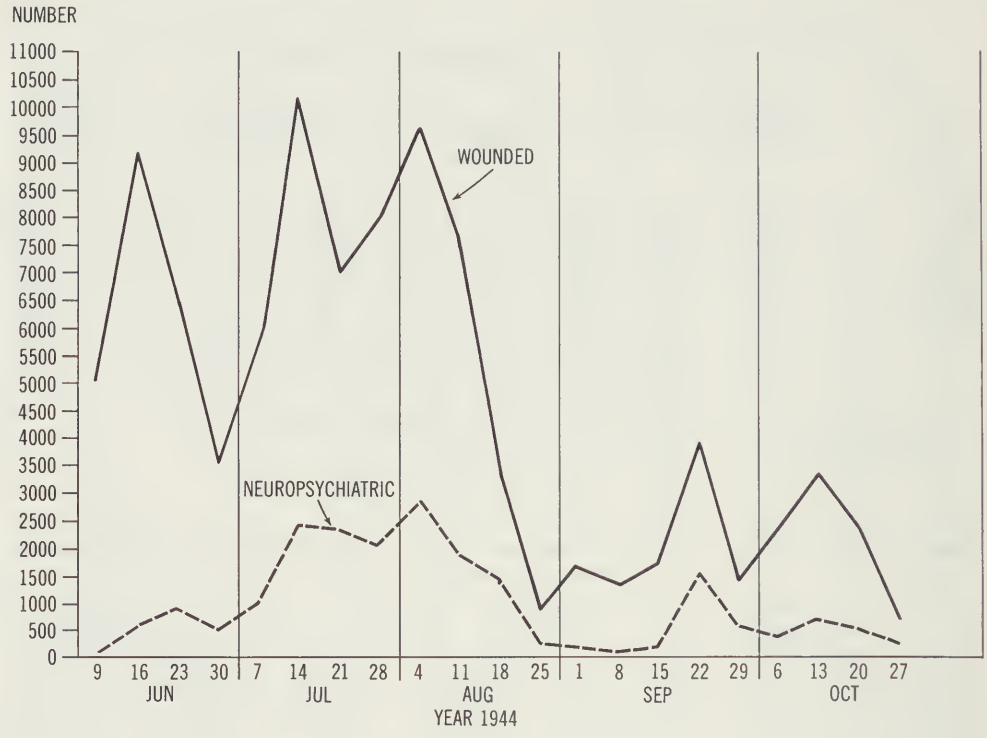
Table 37 is the result of a study related to combat situations in the First U.S. Army and gives a chronological percentage analysis of medical statistics from 1 August 1944 to 22 February 1945.

Section II. Third U.S. Army

Perry C. Talkington, M.D.

The psychiatric experience in the Third U.S. Army can best be divided into three phases: (1) Planning, from 23 March to 6 July 1944; (2) preoperational, on the Continent, from 7 to 31 July 1944; and (3) operational, from 1 August 1944 to 9 May 1945.

CHART 3.—*Comparison of wounded admissions with neuropsychiatric admissions, First U.S. Army, 9 June–27 October 1944*



PLANNING PHASE

The planning phase included (1) the formulation of a psychiatric policy for this field Army, (2) the dissemination of policy to all Army units, (3) the indoctrination of division medical personnel as to their function in preventing neuropsychiatric casualties, (4) the review of the qualifications

TABLE 36.—*Increase in battle casualties and neuropsychiatric admissions, First U.S. Army, 9 June–22 September 1944*

Period	Admissions		
	Wounded	Neuropsychiatric	
	Number	*Number*	*Percent*
9–16 June	4,231	590	13.9
7–14 July	4,211	1,399	33.2
28 July–4 August	1,639	755	46.1
15–22 September	2,258	1,288	57.0

NOTE.—Data derived from basic table 33.

TABLE 37.—*Percentage analysis of medical statistics, First U.S. Army, 1 August 1944–22 February 1945*

Combat situation	Seriously wounded	Slightly wounded	Non-battle injury	Neuro-psychi-atric	Other diseases
Exploitation of Saint-Lô, breakthrough to the division to the Roer River (1 Aug.–22 Feb. 1945)	12.9	25.5	16.4	9.7	35.5
The drive south (1–10 Aug. 1944)	21.5	38.2	6.7	17.9	15.7
Falaise-Argentan Gap (11–19 Aug. 1944)	14.0	29.6	9.3	20.0	27.1
Drive to Seine (20–26 Aug. 1944)	13.1	18.9	16.4	9.7	41.9
Northern France (27 Aug.–3 Sept. 1944)	23.0	22.9	16.7	6.2	31.2
To Siegfried Line (4–12 Sept. 1944)	23.0	20.4	15.6	3.5	37.5
Consolidation (13 Sept.–15 Oct. 1944)	16.5	28.7	9.0	12.5	33.3
Aächen offensive (16–26 Oct. 1944)	8.2	21.0	12.4	9.7	48.7
Preparation (27 Oct.–15 Nov. 1944)	8.4	19.6	11.7	9.5	50.8
Drive to Roer River (16 Nov.–13 Dec. 1944)	14.1	29.1	14.0	9.8	33.0
Roer Dam offensive (14–15 Dec. 1944)	10.1	27.6	25.7	11.9	24.7
German offensive (16 Dec.–2 Jan. 1945)	10.6	25.9	25.0	8.6	29.9
Drive to Roer River (3 Jan.–22 Feb. 1945)	8.6	19.5	24.0	4.6	43.3

of all individuals assigned to combat divisions and evacuation hospitals as psychiatrists, and (5) the training of battalion surgeons in the recognition and treatment of psychiatric casualties.

The planning stage in the United Kingdom emphasized preventive psychiatry. Because virtually all preventive measures were command functions, division psychiatrists disseminated pertinent information to line officers. Special importance was placed on the need to differentiate between cases of physical fatigue and neuropsychiatric casualties. The Third U.S. Army policy on the prevention of neuropsychiatric casualties was written into the Operation OVERLORD medical plan.[6]

The avoidance of indiscriminate evacuation of psychiatric disorders and their proper selection for prompt treatment in the combat area were considered imperative. Formal neuropsychiatric diagnosis was considered to influence the soldier to believe that he would never again perform combat service. It was directed, therefore, that no diagnosis other than "exhaustion" be placed on the EMT (Emergency Medical Tag), except in the case of the obviously psychotic.

Arrangements were made with Col. Lloyd J. Thompson, MC, Senior Consultant in Neuropsychiatry, that theater schools be continued for division medical officers and evacuation hospital psychiatrists. In some divisions, 95 percent of all division medical officers took the course in "combat neuroses."

The records of all medical officers assigned to Third U.S. Army units were reviewed. In addition to the psychiatrists assigned to each of the 14

[6] Third U.S. Army Outline Plan for Operation OVERLORD, 11 May 1944, Annex No. 16 (Medical Plan).

combat divisions, the 12 assigned as psychiatrists to each of the 12 evacuation hospitals and the two assigned to convalescent hospitals, four other eminently qualified psychiatrists were found, in addition to 20 others with a background of training and experience which would permit them to serve adequately as psychiatrists under supervision. In several instances, it was found that assigned psychiatrists were, in fact, not psychiatrists and could now be replaced by qualified specialists.

Each evacuation hospital psychiatrist took two officers of the Army Nurse Corps and six enlisted men to the 312th Station Hospital (NP) for training as a narcotherapy team. Also, each of the three convalescent hospital psychiatrists took six enlisted men only for such training since nurses were not assigned to convalescent hospitals. Maj. Lewis J. Fielding, MC, 32d Evacuation Hospital, and Capt. Israel S. Freiman, MC, 16th Field Hospital, were assigned as auxiliary Army consultants in psychiatry.

It was believed that psychiatric casualties could be held for treatment at battalion aid station level for 12 hours and that the regimental surgeon at the level of the regimental trains could treat more serious casualties for 48 hours. Those who could not be returned to duty from this level could be treated by the division psychiatrists at the clearing station for periods up to 4 days. Normally situated rearward of the division, the evacuation hospital with its trained psychiatric team could receive patients who could not be returned to duty from clearing station level. The evacuation hospital could be expected to retain psychiatric patients for treatment for 7 to 10 days. A war of movement, with rapid changes and high casualty rates was already envisioned; and it was anticipated that many psychiatric casualties who might otherwise have been returned to full combat duty would be lost to the Army. Therefore, each convalescent hospital was equipped with a clinical neuropsychiatric section which included a comprehensive, intensive, and graded rehabilitation program. It seemed that the convalescent hospital could be ideally adapted for handling psychiatric casualties.

At this time, Lt. Col. Perry C. Talkington, MC, Consultant in Neuropsychiatry, Third U.S. Army (fig. 36), began visits to all Army divisions, evacuation hospitals, and convalescent hospitals to discuss the principles of management, treatment, and return to duty of psychiatric casualties. In each division, the commanding general, chief of staff, surgeon, and psychiatrist were routinely interviewed. In the hospitals, the commanding officer, the chief of medical service, and the psychiatrist were seen. Requisitions were made through Army medical supply for all drugs required for neuropsychiatric therapy, and plans were made at the Army level for the return of the psychiatric casualties through the normal replacement system, to parent units, without loss of time.

Before D-day, 10 of the Third U.S. Army combat divisions had been lent to the First U.S. Army for the invasion. Third U.S. Army evacuation hospitals were moved to the vicinity of the English Channel to function as

FIGURE 36.—Lt. Col. Perry C. Talkington, MC, Consultant in Neuropsychiatry, Third U.S. Army.

transit hospitals. Division psychiatrists had lectured to line and medical officers of their respective divisions. All evacuation and convalescent hospital psychiatrists had trained narcotherapy teams. Some of the 29 psychiatrists had been to the School of Military Neuropsychiatry in the Zone of Interior. All had attended the ETOUSA course in combat neuroses and had psychiatric experience varying from 1 to 22 years, with an average of 5 years. Three had been certified by the American Board of Psychiatry and Neurology.

PREOPERATIONAL PHASE ON THE CONTINENT

With the United Kingdom planning phase completed and the operational phase still ahead, Colonel Talkington arrived in France on 6 July 1944, with the Army's forward echelon. As a staff officer, he met the Third U.S. Army units as they arrived at the Omaha Beach. By 19 July 1944, he had begun a series of visits to all Third U.S. Army divisions that had been in combat. All the Army evacuation hospital psychiatrists had been made available to the neurosis centers of the First U.S. Army. Before 1

August, several important factors in evaluating the potential psychiatric casualties in the Third U.S. Army were found.

In several divisions, the Third U.S. Army was taking over seasoned, but tired, troops, some of whom had been in combat since D-day. In seven divisions, there had been large replacements by new troops in whom a high rate of neuropsychiatric casualties could be expected. In some divisions, 50 percent of the officers had been replaced. The new officers were not battle seasoned, and their troops were aware of it.

The Third U.S. Army evacuation hospitals which were operational before 1 August found that many psychiatric casualties were admitted directly because they were in the normal channels of evacuation. The evacuation hospitals were faced with the problem of transferring such casualties to the operational neurosis centers without benefit of psychiatric treatment. Their medical and surgical services described the need for neurological and psychiatric consultation and the difficulty in transferring patients laterally to the neurosis centers, particularly if there were medical or surgical complications.

The First U.S. Army "combat exhaustion" centers were well staffed and psychiatrically doing a superb job. However, they seemed to operate in relative isolation, outside the normal channels of evacuation, and needed facilities for laboratory, X-ray, and medical and surgical consultation. As a result of these observations, the Third U.S. Army policy of maintaining the neuropsychiatric service in the evacuation hospital was not changed.

OPERATIONAL PHASE

August 1944

The Third U.S. Army became operational on 1 August 1944, at the time of the Saint-Lô breakthrough. Third U.S. Army psychiatrists were removed from the First U.S. Army exhaustion center, except for three psychiatrists temporarily assigned to the 614th Medical Clearing Company. The designated mission of the 614th was to relieve the 622d Medical Clearing Company, a First U.S. Army unit operating as a combat exhaustion center for all Third U.S. Army patients, and to continue this function until all patients had been evacuated.

On 31 July, all available tents had been erected, and the 614th was ready to operate (figs. 37, 38, and 39). Attached troops for this mission consisted of the 1st Platoon of the 623d Medical Clearing Company, with five officers and 40 enlisted men. Also added were 11 enlisted men of the 437th Medical Collecting Company, one officer and four enlisted men from the 35th Evacuation Hospital, one officer of the 34th Evacuation Hospital, and one officer of the 6th Convalescent Hospital. These three officers were the psychiatrists of their respective installations. No consultation, labora-

FIGURE 37.—"Chez nous"—our home in the field.

tory, or X-ray facilities were available, and the station was out of normal evacuation channels.

On 1 August, 175 patients in various stages of treatment were received from the 622d Medical Clearing Company, and on 2 and 3 August, 110 patients, also in varied stages of treatment, were received from the 618th Medical Clearing Company Combat Exhaustion Center, First U.S. Army. Of these patients, 44 were ultimately transferred to evacuation hospitals and 25 to a holding company to await transfer to the United Kingdom; 204 were returned to duty; 11 were returned to the First U.S. Army 622d Clearing Company; and one was returned to the 5th General Hospital. The 614th was closed on 8 August, and the three psychiatrists returned to their respective hospitals. At this point, two additional psychiatrists and 12 additional trained enlisted men were assigned to the 6th Convalescent Hospital.

FIGURE 38.—Field mess, camouflaged.

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FIGURE 39.—Refreshment in the field.

The operational phase from 1 to 31 August 1944 was characterized by a "breakthrough" and the sweep of a conquering army across France. Objectives were clearly delineated and quickly taken. Morale was exceptionally high. The average soldier had developed enormous pride in his unit and day-to-day progress convinced him that he belonged to an invincible army, superior to any enemy in leadership, training, and material. Instead of the relatively high rate which had been expected, psychiatric casualties represented only 7.4 percent of the total nonfatal casualties during the period.[7]

The neuropsychiatric casualty rate was lower in the infantry divisions utilizing unit rest areas to the fullest extent. In the armored divisions, the psychiatrist worked most efficiently when placed in a treatment platoon of a medical company, with the reserve combat command.

Accurate data could not be obtained on the number of psychiatric casualties returned to duty from unit rest areas and aid stations. However, 1,461 such cases were admitted to division clearing stations and hospital installations during August. Of these, 417 were returned to duty at the division level and 612 from the hospital level. The total of 1,029 returned to duty represented 70.4 percent of the psychiatric casualties for this period.

[7] Another example of low psychiatric rates in rapidly advancing victorious troops.—A. J. G.

It is noteworthy that 125 of 200 psychiatric casualties sent from evacuation hospitals to the convalescent hospital were returned to duty. Although the type of warfare accounted in great part for the low incidence of psychiatric casualties, the results of therapy reflected the training of the psychiatrists in their respective echelons.[8]

With the beginning of the operational phase, Colonel Talkington established the practice of visiting all installations routinely. During this highly mobile phase, with five armored divisions spearheading in three directions and nine infantry divisions consolidating their gains, division commanders usually welcomed the opportunity to utilize anyone from Army headquarters as a liaison officer. This sometimes meant taking copious notes on division nonmedical needs, for transmittal to the Army chief of staff. During this phase of operation, 14 evacuation hospitals served the 14 divisions.

In this period, the Third U.S. Army experienced two types of combat—the phase of extreme mobility, and the phase which developed after 21 August, when the supply lines became greatly overextended. During the final week of August, with the German Army apparently completely disorganized, the Army literally ran out of gas. Its advance for the final week of the month was on foot, or with captured low-octane enemy gasoline.[9] All supplies were short, and as the advance moved slowly, south and east of Paris to Verdun, German guns and ammunition were used against the enemy. It became apparent at this point that the incidence of psychiatric casualties in the field army was inextricably involved in the tactical situation, objectives, supply, confidence in the supporting echelons, weather, success of operations, and whether the combat was mobile or static. It was found, too, that the few divisions which attempted to handle the total neuropsychiatric problem without triage at the clearing company produced a higher incidence of psychiatric casualties.

September 1944

The month of September opened a new type of warfare for the Third U.S. Army. Through 7 September, the tactical situation was static. Casualties of all types were relatively few, and the incidence of psychiatric casualties was extraordinarily low.

On 8 September, a drive was made to cross the Moselle River. As the enemy had had an opportunity to reorganize and dig in, there was a marked increase in all types of casualties admitted to division clearing companies. The highest casualty rates occurred in the 10th, 11th, and 2d Regiments of the 5th Infantry Division. On 10 September, the division clearing com-

[8] This conclusion may be valid, yet experience indicates that return-to-duty rates are always higher under favorable tactical circumstances.—A. J. G.

[9] It was not quite this bad during the last week of August. *See* Cole, H. M.: The Lorraine Campaign. United States Army in World War II. European Theater of Operations. Washington: U.S. Government Printing Office, 1950, pp. 22–25.

pany admitted 558 casualties of all types and, on the following day, admitted 468.

The combination of a different type of warfare, strong enemy opposition, the beginning of cold weather, and the onset of heavy rains brought an increase in psychiatric casualties in all divisions. Those divisions which had made every effort toward handling physical exhaustion and combat exhaustion cases in battalion and regimental areas, such as the 35th, 79th, and 90th Infantry Divisions, continued to have a relatively low incidence of psychiatric casualties. The 5th Infantry Division, which had little provision for treatment of psychiatric casualties at the station level, and the 80th Infantry Division, which had emphasized treatment at clearing station level, showed a comparative increase in psychiatric casualties during this phase. For September, in the 80th Infantry Division, psychiatric casualties represented 15.8 percent of total admissions to the clearing station and, in the 5th Infantry Division, 24.4 percent of all clearing station admissions.

The 80th Infantry Division created a convalescent section at clearing station level (fig. 40) to prevent a large number of patients, including the slightly wounded, from being lost to the division. By contrast, a large number of 5th Infantry Division psychiatric patients were evacuated. This resulted in an overloading of the Third U.S. Army evacuation system, with an inundation of the evacuation hospitals supporting the 80th Division.

On 12 September, one platoon of the 92d Medical Gas Treatment Bat-

FIGURE 40.—Clearing station of 80th Infantry Division. Left to right: Col. Lloyd J. Thompson, MC, Lt. Col. Perry C. Talkington, MC, and Maj. Harrison F. English III, MC.

talion was placed by the Army at the 5th Infantry Division clearing station level. The battalion had tentage and litters to accommodate 150 cases of combat exhaustion and was equipped with bath and laundry facilities. The additional personnel and physical equipment, under the supervision of the division neuropsychiatrist, returned 274 psychiatric patients to combat duty. Toward the end of the month, the necessity for treating psychiatric patients at aid station level was emphasized to the 5th Division. As a result, the division attempted to treat psychiatric casualties in forward areas, with an increasing number retained on full combat duty and a decreasing number admitted to the clearing station.

Armored divisions were so constituted that it was difficult and sometimes impossible to handle psychiatric casualties at aid station level, particularly in a changing tactical situation. During September, personnel in armored divisions believed that the objectives were not those of armor; further, that they were crack troops and would, therefore, be used for the duration without rest. These understandable attitudes, plus physical exhaustion which also applied to the infantry divisions, resulted in an increase in psychiatric casualties in the three armored divisions of the Third U.S. Army. The large number of combat exhaustion cases in the 7th Armored Division required the temporary addition of one platoon of a corps medical collecting company to provide adequate facilities at clearing station level. Armored divisions in the Third Army always had a lower total casualty rate, but a higher neuropsychiatric casualty rate, than did the infantry divisions. This was particularly true in September 1944, when in the 4th and 6th Armored Divisions, the two most actively engaged, neuropsychiatric casualties constituted 16 and 26 percent, respectively, of total admissions to medical treatment facilities. The highest incidence was invariably from the armored infantry units.

Although the tactical situation was comparatively static throughout September, its intensity produced approximately 4,000 more casualties than in August. Neuropsychiatric casualties increased from 7.4 percent to 10.5 percent of all admissions to division clearing stations. A higher percentage of psychiatric casualties was returned to duty from both clearing station and hospital levels, because longer periods of treatment were possible in a nonmobile situation.

October 1944

In October, the situation remained static, and the weather continued to be cold and wet. Total nonfatal casualties dropped to 16,015, with a proportionate decrease in the psychiatric casualties. The 6th Armored Division was almost wholly removed from combat on 9 October. Psychiatric casualties decreased from the 26.2 percent of September to 14.4 percent. The 4th Armored Division was gradually relieved by the 26th Infantry Division

with a decline in total nonfatal casualties and psychiatric casualties. Toward the end of this period, the 4th Armored Division evacuated through medical neuropsychiatric channels a number of men who had, in more than 3 months of combat, reached the point where the division considered them incapable of further combat service, but capable of rendering noncombatant duty.

Infantry divisions which had emphasized treatment at aid station level continued to exhibit an extraordinarily low incidence of psychiatric casualties. For example, for October, the incidence in the 90th Infantry Division was 3.5 percent and in the 35th Infantry Division 2.9 percent of total nonfatal casualties. Of these, approximately 45 percent were returned to duty at clearing company level. The 5th Infantry Division had strongly emphasized the care of these casualties in forward areas with a resultant marked drop in total incidence of psychiatric casualties, although the total casualty rate remained fairly high during October. At this time, the division was temporarily relieved from combat for rest and recreation. The 80th Infantry Division continued to emphasize care of psychiatric casualties at the clearing station rather than at the aid station, and for October, psychiatric casualties represented 16.9 percent of the total nonfatal casualties in this division. Experiences of the 5th and the 80th Infantry Divisions showed conclusively that the more patients were sent to the division rear, the more it was necessary to evacuate to the division rear.

The experience of the 35th, 79th, and 90th Infantry Divisions, and of the 5th Infantry Division after it instituted the policy of handling these patients at aid station level, demonstrated that the farther forward these patients were treated the higher the percentage returned to duty and the actual decrease in the number of men evacuated even to aid station level.

Many of the Third U.S. Army infantry divisions had been in combat almost since D-day. Division surgeons and line officers alike expressed the opinion that soldiers in battle since the divisions were committed, amounting in some instances to 120 days, were "worn out" for further combat, even as ordnance and quartermaster equipment may be worn out.

Throughout October, the number of psychiatric repeaters increased, and a moderately higher percentage of psychiatric casualties were returned to noncombatant service within the divisions. There was an increase in written statements by line officers on the accompanying EMT's, such as "This man now freezes on the trigger and freezes under artillery fire. He is in no way a goldbrick or a coward, but is of no further service as a combat soldier. It is requested that he be assigned to noncombatant duty." The officers expressed the opinion that many infantry and armored infantry soldiers were "used up" for combat service in 90 to 120 days of combat.

Divisions were rested in whole or in part by being drawn completely out of combat. Some were rested by companies within the division area. Five percent of each command went into cities and towns for brief rest, and to areas with baths, clean clothing, and entertainment. During this

month, a small percentage of each command was sent to Paris for rest and relaxation. The neuropsychiatric rate dropped only 0.5 percent below that of September, principally because of veteran combat personnel who were evacuated as "used up." Even so, the percentage of psychiatric casualties returned to duty from clearing company and from hospital levels, combined, reached a peak of 83 percent.

November 1944

The incidence of psychiatric casualties in the Third U.S. Army during November was influenced by several factors. The Army, which had swept across France and engaged in prolonged and static warfare along the Moselle River and before Metz, now began the slow and arduous push to the Saar and the German border. The weather had become colder, with sleet, snow, and ice. Water crossings were necessary, and the Army had been unable to obtain enough overshoes. Many divisions had been in combat since D-day; others, since the Third U.S. Army became operational on 1 August 1944.

Officers and men who remained in the divisions as of 1 November 1944 were weary from constant contact with the enemy over a period of 100 days or more. The few remaining key noncommissioned officers who had been the backbone of their combat units, in many instances, were no longer able to face enemy fire. These men ranged in rank from sergeant to master sergeant, and many had received the Silver Star, Bronze Star, and Purple Heart. They had proved repeatedly that they were not cowards, but now were no longer useful in combat.[10] No physical disease could be found in these men. There was no overt evidence of psychosis or psychoneurosis, but the very qualities of leadership which had made them key noncommissioned officers now caused them to lead reinforcements to cellars and foxholes rather than forward, thereby constituting a demoralizing element in their units.

Each division had set up rest facilities at the battalion bivouac areas, the regimental supply areas, and in the division rear to which tired men were sent for 1 to 3 days for rest and recuperation. In addition, the Third U.S. Army rest center in Nancy was functioning more than adequately. Also, soldiers, officers, and nurses were being sent for 3-day rest periods in Paris, at the rate of 500 per month from the Army. Every effort was made by command to combat cold and fatigue. The combat soldier was supplied with one hot meal or some hot elements of a meal daily wherever humanly possible.

On 8 and 9 November, the Third U.S. Army attacked on a front extending from Sierck-les-Bains, France, to a point halfway between Nancy and Charmes. Enemy opposition was fierce along the entire line and par-

[10] See footnote 5, p. 287.

ticularly in the never-conquered city of Metz. Casualty rates pyramided as of 8 November, and by the end of the month, total nonfatal casualties amounted to 36,492, an alltime monthly high. The incidence of psychiatric casualties compared to the total nonfatal casualties for the first 4 months was as follows: 7.4 percent for August, 10.5 percent for September, 10.4 percent for October, and 9.1 percent for November.

The influx of almost 36,500 patients in a period of 30 days resulted in shorter periods of care at aid stations, clearing stations, evacuation hospitals, and convalescent hospitals. Of the 3,338 psychiatric casualties, 911 were returned to duty from clearing stations, this being somewhat fewer than had been returned from the same level in previous months. Because clearing companies moved frequently, fewer patients could be held for treatment. Each evacuation hospital received from 1,100 to 5,900 patients, and convalescent hospitals were, in many instances, filled to capacity. As a result, only 2,220 (66.5 percent) of the psychiatric casualties were returned to duty at the army level.

December 1944

During the first week of December, slow but steady advances continued. The Third U.S. Army, disposed along the Saar River, was within the boundaries of Germany for a distance of 60 miles. Although enemy resistance was always constant and determined and U.S. Army casualties high, Saarlautern and Sarreguemines were taken in the second week of December, at which time the combat situation again became somewhat static. As of 1 December, virtually all combat troops had been supplied with overshoes and ample changes of socks. The incidence of trenchfoot had decreased remarkably as every effort was made to implement the program of changing socks and massaging and warming the feet. As previously, efforts to reduce the incidence of trenchfoot also tended to reduce the neuropsychiatric cases. Wherever possible, platoons, companies, and battalions were rested and, in some instances, entire divisions were removed from combat for rest and reequipment.

On 18 December, the German Army broke through the First U.S. Army zone. Its advance was well organized and rapid across Luxembourg and the adjacent parts of Belgium. Divisions were drawn from the Third U.S. Army and thrown against the southern flank of this bulge. By 12 December, XII Corps with its divisions had already moved from the Third U.S. Army's most southern sector. In conjunction with VIII Corps which was now assigned to the Third U.S. Army, with the remains of its divisions, it walled off the southern flank and the western extremities of the German advance. Parts of the 101st Airborne Division with the 9th and 10th Armored Divisions were isolated and pinned down in Bastogne by the Germans. By 30 December, Bastogne was relieved, and the sick and

wounded were evacuated, with an extraordinarily low number of neuropsychiatric cases.[11] For December, there were 33,222 total nonfatal casualties and 2,587 neuropsychiatric cases (7.8 percent) which represented an incidence equal to that of August 1944, during the sweep across France.

During December, the divisions returned 40 percent of their psychiatric patients to duty. Of those admitted to Army hospitals, 61.2 percent were returned to duty so that 75.5 percent were salvaged within the Third U.S. Army. From 1 August to 31 December, inclusive, the Third U.S. Army had sustained 138,968 nonfatal and 12,426 psychiatric casualties. Of the psychiatric casualties, 9,099 were returned to duty; the remainder consisted principally of psychoses, epilepsy, constitutional psychopathic states, mental deficiencies, and chronic progressive neurological diseases. Thus, the loss to the Third U.S. Army through neuropsychiatric channels was 2.4 percent of the total nonfatal casualties.

January 1945

During January, the "Bulge" produced by the German breakthrough in the Saint-Vith Bastogne-Houffalize-Ciney area was reduced to the German border (map 15). This battle resulted in the greatest number of total nonfatal casualties yet sustained by Third U.S. Army. During this period, the incidence of psychiatric casualties dropped to 5.6 percent of the total nonfatal casualties, its lowest rate in 6 months of combat. Outstanding leadership, the Third U.S. Army being again "on the move," and the awareness of every soldier that the Germans were losing and being forced back into Germany contributed to an exceptionally high level of morale throughout the Army. These factors overshadowed the unfavorable ones of rugged terrain, snow, and freezing temperatures.

By 8 January, it had become apparent that the German Army had lost its drive to capture Antwerp, the source of Allied supplies. It took 3 additional weeks, however, to clean out all the German units and to straighten the battleline to where it had been on 18 December. On 24 January, by orders from higher headquarters, the Third U.S. Army offensive was again stopped. Rumor had it that the official order was to go on the defensive, but that Lt. Gen. (later General of the Army) Omar N. Bradley had read into the order the word "aggressive" defense. All echelons began to hoard the necessary items of food, clothes, ammunition, and gasoline and to defend themselves aggressively in a forward motion. It was rumored that supplies were again going to the British Forces for a crossing of the Rhine to compensate for their unsuccessful attempts at Caen, Arnhem, and in the Ardennes Forest.

With the order to assume a defensive position, a drop in morale was noted. Several other factors which further contributed to the lowering of

[11] Another example of low incidence of psychiatric casualties under circumstances when evacuation cannot be accomplished.—A. J. G.

MAP 15.—Battle of the Ardennes, 26 December 1944–28 January 1945.

morale were brought to the attention of Col. (later Brig. Gen.) Thomas D. Hurley, MC, Surgeon, Third U.S. Army: A rotation policy announced by General Hawley on 5 August 1944, had not been put into effect. Division medical officers and others eligible for such rotation were exhausted by continuous combat service without relief, and were now embittered by the chain of events. A survey of the 90th Infantry Division showed that three officers and 300 enlisted men had been in combat for 187 days or longer. In addition, the extended lines of communications had put the replacement system under control of the communications zone so that men returning from the hospital were no longer returned to their original units.

February 1945

During February, the Third U.S. Army broke through the Siegfried Line from the vicinity of Trier, Germany, to Saint-Vith, cleaned out the enemy-occupied triangle between the Saar and Moselle Rivers, and advanced to Prüm and Bitburg. This was a fairly rapid advance, and total nonfatal casualties for February were some 15,000 fewer than the previous month. The neuropsychiatric casualty rate, as compared to the total nonfatal casualties, was 5.7 percent.

March 1945

The breakthrough in the Siegfried Line was exploited so well that the Rhine River was reached by the 4th and 11th Armored Divisions on 8 March. The entire Third U.S. Army assigned area north of the Moselle River was cleared of enemy opposition and the river crossed south of Koblenz on 16 March. At this point, the Army made a right-angle turn and, with extraordinary rapidity, began cleaning out the Rhine-Moselle-Saar triangle. The taking of some 2,000 square miles in this area reduced the resistance opposite Seventh U.S. Army so that it was able to break through the Siegfried Line in its area.

Between 23 and 25 March, a bridgehead was quietly established over the Rhine without artillery preparation, so that few casualties were sustained. Throughout this period, the Third U.S. Army was constantly "on the move." Rapid progress was evident to every officer and enlisted man, as were the evidences of extremely competent generalship. The inhabitants of cities and vast numbers of prisoners of war kept the Army personnel well oriented to the favorable tactical situation, and morale continued to be exceptionally high. The incidence of psychiatric casualties had been less than 6 percent of total nonfatal casualties since the first of the year. Of the 32,066 nonfatal casualties in March, 1,779 were neuropsychiatric. This represented 5.5 percent of the total, and of these, 1,508 (84.8 percent) were returned to duty. The exceptionally large number returned to duty

could be accounted for by the low number of admissions which permitted psychiatrists in each installation ample time for treatment.[12]

On 19 March 1945, Colonel Talkington submitted a report to the Surgeon General's Office on the neuropsychiatric activities at the Army level.[13]

Toward the end of March, there was a moderate increase in referrals for chronic alcoholism and of hospital admissions for psychiatric opinion relative to administrative action in disciplinary cases. Of the total neuropsychiatric admissions, however, 47.7 percent were returned to duty at division level and 44 percent from the evacuation and convalescent hospital levels.

April 1945

The Third U.S. Army, having driven eastward to Chemnitz, moved to the south and east, relinquishing its newly gained territory to the First U.S. Army. A boundary between the Third and the Seventh U.S. Armies was moved south to a point north of Munich. The Third U.S. Army forces continued to push to the south and southeast, crossing the Danube and Isar Rivers, and the Middle Isar Canal. By 30 April, the 11th Armored Division had crossed the German border into Austria in the direction of Linz. Enemy transportation, supplies, and communications were disrupted, and vast numbers of prisoners were taken. The morale of the entire Army was exceedingly high.

During April 1945, of the total 21,314 direct admissions, 706 (3.3 percent) were admitted as psychiatric patients. Of the psychiatric casualties, 555 (78.6 percent) were returned to duty.

This was an extraordinarily low admission rate for neuropsychiatric cases. It was found, however, that administrative and disciplinary referrals increased throughout the month. In general, these were admitted from combat units for further neuropsychiatric opinion and, in many instances, with the request that administrative and disciplinary problems be evacuated through medical channels. There was also an increased number admitted with a history of recurrent episodes of acute alcoholism. This type of individual was, of necessity, returned to a parent unit for administrative or disciplinary action.

May 1945

During the first 8 days of May, the Third U.S. Army swept well into Austria and Czechoslovakia. There were rumors of peace during this period, and most divisions reached their restraining lines and assumed defensive

[12] Or as previously noted, the obvious impending victorious end of the war.—A. J. G.

[13] Letter, Lt. Col. Perry C. Talkington, MC, to Col. William C. Menninger, Office of the Surgeon General, Washington, D.C., 19 Mar. 1945, reporting the neuropsychiatric activities in the Third U.S. Army.

positions on 7 and 8 May. A total of 5,391 patients were admitted, of which 123 were neuropsychiatric cases. They constituted 2.3 percent of total admissions—the alltime low for the Third Army. Of these, 88 (71.5 percent) were returned to duty. Throughout the entire operational period, from 1 August 1944 to 8 May 1945, inclusive, 7 percent of all admissions were neuropsychiatric and, of these, 74.3 percent of all types were returned to duty (table 38).

At the termination of hostilities, Colonel Talkington was accompanied on one of his trips by a special psychiatric commission, consisting of Dr. Leo H. Bartemeier, Dr. Lawrence S. Kubie, Dr. Karl A. Menninger, Dr. John Romano, and Dr. John C. Whitehorn. The group visited the 104th Evacuation Hospital, Army headquarters, XII Corps headquarters, 106th and 110th Evacuation Hospitals, 4th Armored Division, and 90th Infantry Division in Sušice, Czechoslovakia. Churchill's peace announcement was heard on the radio in the aid station of the 358th Regiment of the 5th Infantry Division in Kašperské Hory, Czechoslovakia. At this point, with a virtual cessation of hostilities for several days, practically no psychiatric casualties were found at aid stations, clearing stations, or evacuation hospitals.

TABLE 38.—*Admissions, all causes, and neuropsychiatric admissions and disposition, Third U.S. Army, August 1944–May 1945, by month*

Month	Total admissions (number)	Neuropsychiatric cases			
		Admissions (number)	Percent of total admissions	Returned to duty	
				Number	Percent
1944					
August	24,943	1,855	7.4	1,303	70.2
September	28,336	2,981	10.5	2,244	75.3
October	16,015	1,665	10.4	1,378	82.8
November	36,452	3,338	9.2	2,220	66.5
December	33,222	2,587	7.8	1,954	75.5
1945					
January	47,409	2,655	5.6	1,907	71.8
February	32,189	1,847	5.7	1,349	73.0
March	32,066	1,779	5.5	1,508	84.8
April	21,314	706	3.3	555	78.6
May	5,391	123	2.3	88	71.5
Total	277,337	19,536	7.0	14,506	74.3

Source: Talkington, P. C.: Combat Psychiatry, Third U.S. Army Experience. Mil. Surgeon 98: 401–404, May 1946.

TREATMENT IN ECHELON

Battalion Aid Station

Although records were not kept, Colonel Talkington estimated that approximately 80 percent of psychiatric casualties were returned to full combat duty from the battalion aid station. Battalion surgeons had been trained in the United Kingdom to do minor surgery, minor internal medicine, and minor psychiatry. They had been trained intensively at the 312th Station Hospital (NP) in the techniques of minor psychiatry in combat. However, the attrition rate among these men was relatively high. Replacements ordinarily spent some time with the Army consultant in neuropsychiatry and with the division psychiatrist before being moved to the battalion aid station. In many instances, the assistant battalion surgeon was a Dental Corps officer. Treatment at the battalion aid station, as already described, for a period of 12 hours or, under rare circumstances, as long as 24 hours, included sleep, hot food, sedation if indicated, a change of clothes, and either individual or small-group discussion, with explanation of symptoms.

Several factors contributed to the high recovery rate. The battalion aid station was usually 400 yards behind the infantry riflemen. Medical Department litter bearers worked standing up, whereas the rifllemen were pinned to the ground. The riflemen called the medical aidmen and litter bearers "Doc" and had a tremendous respect for their physical courage. Newly committed troops knew the battalion surgeon, the assistant battalion surgeon, the corpsmen in the aid station, and the litter bearers. The surgeon was their doctor, equipped with blood plasma and whole blood, as well as with medications. Although the infantryman tended to look on the aid station as "rear echelon," the medical aidman or litter bearer was not. This set of attitudes contributed toward the high rate of return to duty from aid station level. Doing minor psychiatry, the battalion surgeon was also favored by the fact that there was a feeling of guilt, even among the wounded. The concept of having let their buddies down opposed the desire to be evacuated. With 19,622 psychiatric casualties treated in division clearing stations and hospitals, it was estimated that 80,000 such men had been salvaged for combat duty at aid station level.

In the Line

The platoon leader and platoon sergeant constituted the final common pathway for command and morale. As long as the platoon leader lived, did not identify himself too closely with troops, and effectively led his men, morale tended to be high. A strong feeling of "brotherhood of man" and mutual interdependence developed within the platoon. Since the casualty

rate among platoon leaders was high, platoon sergeants tended to feel keenly their responsibility in leadership and in "breaking in" new officers.

Because the Third U.S. Army was virtually in contact with the enemy for a period of 11 months, the feeling of extreme fatigue became the order of the day. Because of the tactical situation, it was not always possible for the rifleman to have even one hot dish per day. He was apt to be cold, wet, hungry, and, perhaps, somewhat undernourished, if only because he was too busy or too tired to eat. Under these circumstances of "normal battle discomfort," when a nonwounded soldier reported to the battalion aid station and did not return to the unit in 12 hours, another would also be stimulated to visit the aid station. If relief by medical evacuation continued, the entire platoon soon found its way back to the aid station, and "combat exhaustion," which was always endemic, assumed epidemic proportions.

Regimental Aid Stations

In the division medical services, the regimental aid station was not in the direct line of evacuation. In combat, however, the regimental aid station frequently was on the main supply route, favorably located for treatment of the milder psychiatric casualty who did not require evacuation to the clearing station. Generally, the regimental surgeon had as much psychiatric training as the battalion surgeon and tended to be less overloaded with wounded. Also, the regimental aid station was situated in the vicinity of the regimental train or kitchen area and had sufficient logistic capability to treat psychiatric casualties who required a period of treatment longer than the 12 hours at battalion station level. The regimental surgeon also accepted those psychiatric casualties when the battalion aid station was combat loaded and on the move. Patients from any or all of three battalion aid stations within the regiment were treated for periods up to 48 hours at the regimental level, with the same techniques of treatment used at aid station level. Here, again, no accurate records could be kept. The return to duty rate, however, was high.[14]

Clearing Company Level

The division psychiatrist, as a member of the division surgeon's staff, had a staff function in advising the commanding general and formulating psychiatric policy within the division. He functioned as a consultant in psychiatry and, where the situation permitted, visited the battalion and regimental aid stations in his division. This was difficult because he had no assigned transportation. After the value of his operations became understood within the division, he was usually assigned captured enemy vehicles.

[14] Similar results were obtained by regimental aid stations in the Mediterranean theater (ch. III).—A. J. G.

Those psychiatric casualties who could not be returned to duty from the battalion or regimental aid station were treated by the psychiatrist at clearing company level for periods up to 4 days. There was no table of organization or equipment to assist the division psychiatrist. Any such support had to be provided by the clearing station, but often, the clearing station needed all its assigned men and equipment.

The problems of the division psychiatrist varied with the tactical situation and were quite different in infantry and armored divisions. The problems of transportation and equipment tended to be the same. Colonel Talkington obtained German percussion hammers, tuning forks, stethoscopes (sometimes of the wooden Laennec type), and sphygmomanometers from German medical supply depots and distributed them to division psychiatrists. Tents, cots, and corpsmen, obtained by the psychiatrists from the clearing company, at times, produced controversy, because the clearing company did not have sufficient men and materiel. There was much improvisation by division psychiatrists and actually no one ever knew where the enlisted personnel came from. Sometimes they were reassigned combat soldiers.

In many divisions, the psychiatrist was not well received initially. One division commander expressed the sentiments of many when he told his newly assigned division psychiatrist: "I didn't ask for you. I don't want you, and I demand that you stay out of my sight and refrain from driving my soldiers crazy." However, at the termination of hostilities, this particular general officer—again, like others—said of his division psychiatrist: "This man saved more riflemen for this division than any other single medical officer." Other divisions, in the precombat phase, had the division psychiatrist lecture to all medical officers and, often, to all line officers of the division.

Colonel Talkington made repeated visits to all combat divisions in the United Kingdom, and met all new divisions which were to be committed with the Third U.S. Army as they arrived on the Continent, conferring with the commanding general, deputy commander, chief of staff, division surgeon, and psychiatrist. Discussion of the expected neuropsychiatric casualty rate and of the methods for handling psychiatric casualties was usually accepted casually, frequently with the statement: "We don't think that there are many cowards in this division." After the division was committed, there routinely came a field message urgently requesting the presence of the Army consultant in neuropsychiatry who, on arrival, was asked: "Now, what was it you were telling us about handling NP casualties?"

Infantry divisions.—In the infantry division clearing company, patients were treated as soldiers. In general, minimal amounts of sedation were needed because the average casualty tended to sleep, given any opportunity. Intravenous Sodium Amytal or Sodium Pentothal was used in selected cases.

Early in combat, battalion and regimental aid stations used deep sedation for individuals being transferred to the clearing company. This made such patients litter cases, difficult to handle, and made interrogation impossible on arrival at the clearing station. Clinically, at this level, patients were either very quiet, unresponsive and staring, with a marked decrease in psychomotor activity, or exhibited tremor, usually of the hands and sometimes of the head. Startle reactions increased; perspiration, anxiety, and apprehension were common. Complaints included exhaustion nausea, vomiting, diarrhea, and nervousness.

Diagnoses at this level were anxiety reaction hysteria, reactive depression, constitutional psychopathic state, pseudopsychoses, psychoses, and "others" which included epilepsy, mental deficiency, and concussion.

The 5th Infantry Division reported for its first 2 months of combat (July–September 1944) a breakdown of the psychiatric casualties into separate classifications, as follows: [15]

Diagnosis		*Percent*
Psychoneuroses		87.8
Anxiety state	96.5	
Hysteria	2.5	
Reactive depression	1.0	
Panic reaction	.0	
Other neuropsychiatric diagnoses:		
Constitutional psychopathic state		7.0
Psychosis		1.7
Physical exhaustion		1.7
Others (mental deficiency, epilepsy, etc.)		1.3
No symptomatology		.5
Total		100.0

Five percent of the 5th Infantry Division psychiatric casualties were from replacements. When raw replacements, brought into a division without opportunity for unit identification, were placed in active combat after dark, within 24 to 48 hours a large proportion were brought into battalion aid stations as psychiatric casualties. Therefore, it was found that wherever feasible replacements were brought into the Army area and field training continued within sound of artillery fire. This training was gradually moved forward, ultimately within enemy artillery range, and finally within the sound of small arms fire. At this point, replacements were greeted by the commanding general of the division and moved into their combat unit and position.

The psychiatric casualty rate depended on leadership and the tactical situation, and the division psychiatrist's regular reports included a breakdown by unit. In the infantry, most cases occurred in the combat regiments,

[15] Nesmith, H. D.: Neuropsychiatric Casualties in an Infantry Division. Bull. U.S. Army M. Dept. 7: 445–454, May 1947.

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with a much smaller percentage in headquarters and supporting units and the lowest percentage in the artillery battalions.

From the incidence of nausea, vomiting, diarrhea, and abdominal pain, the order of battle could sometimes be predicted. On occasion, the Third Army consultant in neuropsychiatry and the chief of preventive medicine were asked to investigate outbreaks of diarrhea because of a definite possibility that either food or water had become contaminated. From the incidence of cases, by units and by regiments, it could be predicted that the division was going to attack the following day; also, which regiment was going to spearhead, which was going to flank the attacking regiment, and which was going to be held in reserve.

It was found that moving the psychiatric casualty back to the quiet pastoral scenes simply resulted in the crystallization and fixation of neurotic symptoms. This was true even at division level, where initially some of the divisions had attempted to treat all psychiatric casualties at division rear rather than at battalion aid station, with subsequent marked loss of such individuals for combat. When forward treatment was instituted in these same divisions, the percentage of those returned to full combat duty was extraordinarily high. At division level, improvisation was the rule. In one division, to stop inordinate evacuation of psychiatric casualties, the 92d Medical Gas Treatment Battalion was attached to the division with its 150 beds and six ward tents (p. 302).

At clearing station level, the average patient had no desire for food the first day or so, and then developed a ravenous appetite, followed by marked weight gain.

As a specific example of the problems of a division psychiatrist, Maj. Hyman H. Goldstein, MC,[16] 26th Infantry Division, reported:

> The Battle of the Bulge, or the Ardennes Campaign, necessitated the rapid deployment of the division in a sector of southeastern Belgium to halt the German advance. No rifle company in the division had more than a 5 day rest period and some had only 2 or 3 days of rest before entrucking for further action. The period of rest was to include the training of some three thousand reinforcements, most of whom had been recruited from quartermaster, artillery, engineer, and other units to fill in the division shortage. The division had seen some 70 to 80 days of continuous fighting under the most adverse circumstances before the rest period had begun. Many of the soldiers felt that some relief was essential and were somewhat disgruntled at having "to push on." The infantry reinforcements included many men whose training had been basic training only, and in many instances they had been in assignments which could not be considered as preparing them for meeting the difficulties of infantry riflemen. The possibility of training the reinforcements was curtailed by the urgency of the Ardennes breakthrough.

Major Goldstein, in his report, described the neuropsychiatric activities in his division during the following periods:

[16] Report, Maj. Hyman H. Goldstein, MC, 26th Infantry Division, to The Surgeon General, 25 May 1945, subject: Psychiatric Report.

1. Rest period (5 days).

2. The "Battle of the Bulge," which included contact with the enemy, the push to relieve Bastogne, and the retreat of the German Army from Luxembourg to Germany.

3. Withdrawal from the Ardennes sector and taking up of a "holding position" sector opposite the Siegfried Line.

4. The offensive against the Siegfried Line; the breakthrough and the destruction of the German Army west of the Rhine; the Rhine crossing followed by a rapid advance across Hessen, Thuringia, thence through Bavaria toward Austria * * * in support of spearheading tank divisions. The cessation of hostilities found the divisions poised along a sector of the Austrian-Czechoslovak boundary.

During the rest period, twelve patients were seen; all but three were men recently added to the division as reinforcements. It was obvious that some of the reinforcements had been chosen because of their lack of effectiveness in the transferring unit. Those considered completely unfit as riflemen were evacuated shortly before the division left for the Ardennes sector. Nine patients were evacuated. [It was found that:] a. Reinforcements from other than infantry units resented frequently the change which increased their hazards. However, some had volunteered and others looked forward to duty with a rifle company as a possible adventure.

b. In some instances units transferring soldiers to an infantry division transferred men whom they considered ineffective "misfits," and some soldiers who had shown evidence of anxiety of such severity, prior to transfer, as to make them ineffective in combat. Several had actually been hospitalized as combat exhaustion cases by their units and were apparently singled out for transfer for that reason. The general attitude behind such transfers was best expressed by a soldier seen for combat exhaustion several weeks after his transfer from an artillery battalion. When asked about his transfer he replied, "I don't know why they sent me to the infantry. I always did my work and never got in any trouble." The statement reflected an attitude toward infantry units which requires serious consideration.

The "Battle of the Bulge" was carried out in low-mountain terrain, during blizzards and the coldest part of the year. The Germans used artillery freely and reports suggested that the troops facing us were well trained and well equipped.

Psychiatric casualties were heavy. A total of 478 patients was seen during a period of 5 weeks. The largest number appeared in the period prior to the relief of Bastogne and shortly thereafter. The secondary phase of German withdrawal was associated with a marked drop in psychiatric casualties. The type of patient, treatment, and results of therapy were similar to that noted in a previous report. Better clearing station sites enable us to treat all but a small number of patients evacuated from the front. During the period, 458 patients (361 first admissions and 97 readmissions) were treated, 353 of these were returned to duty and 105 were evacuated. A small percent of those returned to duty were assigned in service units. Reassignment was rarely recommended unless the soldier had been evacuated on at least one other occasion. During one unusually heavy action, it became necessary to utilize the regimental service company as a treatment center for the regiment before having the patient evacuated to the clearing station. As many as 76 patients were being treated for combat exhaustion on one day in the clearing station itself. The effect of a loss of confidence in a company commander was revealed when one company admitted 27 patients within a few days; included were almost all the ranking noncommissioned officers. A rest center was established as a prophylactic measure, since fatigue was contributing considerably to the frequency of psychiatric breakdowns.

In general from a psychiatric viewpoint, it may be said that the situation in the "Battle of the Bulge" was a recapitulation of the situation described during the initial campaign in Lorraine, carried out under somewhat similar circumstances. The presence of large numbers of reinforcements relatively unfamiliar with the duties of an infantry

rifleman, resentment at the change from their previous assignments, and the cold weather in no small measure contributed to the fact that psychiatric casualties were high. However, loss of manpower to the division through evacuation of psychiatric casualties was small, totaling 105 soldiers for a period of 5 weeks.

The taking of a "holding position" along the Siegfried Line after the retreat of the Germans from the Ardennes was generally looked upon as a change from a combat to a noncombat status. The enemy showed relatively little aggressiveness and the division attacked on few occasions and only for a short period during any one attack. The strongly held positions of the Germans in heavily fortified buildings and in heavily mined areas added some new angles of interest. Fear of mines was intensified during the period and the close proximity of the enemy in heavily fortified houses and buildings tended to maintain a state of low grade tension and anxiety in those soldiers who were in immediate contact. However, a large number of the division's soldiers were in positions of such relative safety as to permit good relaxation for long periods of time. Food was of much better quality than at any other period, refitting of clothing was carried out, and a feeling "with this kind of war, we need not be overly concerned over possible death and mutilation" pervaded the division. Many reports suggested that the division had developed an enviable record in the Third Army and the esprit de corps was at a high level.

Psychiatric casualties reflected the situation. Casualties were low and the problems suggested a garrison-like situation. A few men with long exposure to combat trickled in when attacks led to further acute anxiety or chronic tension without ability to relax. Some new reinforcements * * * were seen in consultation because of a reactivation or intensification of premilitary neurotic behavior.

The short periods of attack led to an increase in psychiatric breakdown shortly after the attack. The number was never great, as indicated by the total number of patients treated during the holding action which extended for approximately 5 weeks. A total of 91 patients were treated and returned to duty, 39 were treated and evacuated. Because of the almost complete saturation of the division with men who were considered unsuitable for duty as riflemen, reassignments were not possible. If assignments had been possible at positions other than in the line, only one or two of the patients would have been evacuated.

In the offensive against the Siegfried Line, the breakthrough was accomplished by the troops more readily than was expected. During the first assault the enemy relied heavily on a rapid-firing rocket gun with the auditory stimulus of a screaming sound heard as the rocket left the gun, and with considerable blast effect on final explosion. Although psychiatric casualties were moderately heavy, the heavy action was of sufficiently short duration so that at no time did the problem reach to proportions of that seen in the "Battle of the Bulge."

Blast syndrome became almost as common a diagnosis as combat exhaustion during one interval and since examination failed to show evidence of sufficient trauma to necessitate evacuation a temporary arrangement was made to hold, examine, and treat all blast syndrome cases. During this period, 9 cases diagnosed as blast syndrome were evacuated. After the policy of holding and treating all blast syndrome cases was established, 33 cases were held at the clearing station, of these 26 were returned to duty and 7 were evacuated. A total of 111 combat exhaustion cases were seen in this period, covering 13 days; 63 were returned to duty, 48 were evacuated.

Following the initial period of resistance, the breakthrough occurred, and from that point on the psychiatric casualties were so few and comprised so small a number of all the patients as to make the problem one of minimal concern. During this period which extended to the final occupation of all of Germany, a total of 7 weeks, 66 patients were seen. The rapidity of advance discouraged us from holding and treating patients locally during the initial few weeks.

During the later stages of the period of rapid advance, all psychiatric patients were held and treated locally. During the entire period, 29 patients were returned to duty; 27 were evacuated.

Classification of these patients was as follows:

a. Those in combat over a considerable period of time, who had seen some of the most difficult fighting for Germany. Some of these soldiers continued to be tense and anxious in all the activities especially "flushing out" of woods and houses. The chronic tension state led to sufficient anxiety to require evacuation.

b. Alcohol became readily accessible to the men and an increase in admission for chronic alcoholism occurred. Practically all of the patients suffering from chronic alcoholism had been heavy drinkers most of their adult life; there were a few exceptions. Some increase in tension associated with their military activities may have contributed to the few exceptions.

c. Psychiatric problems of long standing, antedating military service.

Major Goldstein also reported on the following topics:

Forensic psychiatry.—Forensic psychiatry required little attention during the early period of combat. * * * The general plan, to facilitate the best policy with regard to trial, included the following:

1. Attention was directed to the responsibility of company and battalion commanders in trying to understand the reason for the soldier's transgression, and wherever possible to encourage a solution which would be to the best interest of the service in the conservation of manpower and with due consideration of the soldier's interests.

2. The investigating officer, with the help of psychiatric consultation, was to continue with the same aim.

3. All general courts-martial cases were to be interviewed by the division psychiatrist.

4. If trial was necessary in the interests of the service, evaluation of the case was facilitated * * * by the Judge Advocate's recommendation and the opinion offered in the psychiatric consultation.

Disposition (as of 1 May 1945) after psychiatric consultation was as follows:

1. Fifteen (15) were considered as suffering from psychiatric disability of a degree warranting evacuation for hospitalization or reassignment. Evacuation on psychiatric grounds was never carried out unless the regimental commander indicated his willingness to accept such a solution.

2. Twenty-eight (28) were returned to duty after being treated and the charges were dropped by the regiment.

3. Thirty-eight (38) were tried and sentenced with
   a. Sentence suspended: 15
   b. Sentence approved: 23

4. Seven (7) were pending decision.

Training of medical officers.—The constant turnover of medical officers in a division would lead to a loss of an effective psychiatric policy in the division. To offset such a possibility the assignment of all new medical officer personnel to the psychiatrist, before moving them forward, was decided upon. Except for a few, all new officers worked several weeks with the division psychiatrist. In this way it was possible to maintain and strengthen divisional psychiatric policy. The need of an adequate examination and diagnostic decision was constantly stressed, as well as the advisability of treating all possible cases at the clearing station. Evacuation of "Psychosomatic suspects" was thereby kept at a minimum.

Maintenance of psychiatric policies.—Aside from relations with the medical officers, liaison was maintained with the Commanding General, Chief of Staff, regimental com-

manders, G-sections, Judge Advocate, Inspector General, and chaplains, with the permission of the division Surgeon who authorized free access to all offices. Such a liaison is necessary to create, maintain, and encourage interest in the psychiatric problems of the division.

Establishment of an adequate forensic psychiatric examination system.—One of the enlisted men, trained in psychometric testing and history interview methods, examined all prisoners before they were interviewed by the division psychiatrist.

Reports were prepared so as to yield pertinent data which could help in the making of a decision as to disposition. The data usually contained a minute history, a summary of the evaluation of the patient and his possible utility to the Army, and factors contributing to the violation, a statement as to his sanity when seen and at the time of the commission of the acts which led to arrest.

Capt. (later Maj.) Harry H. Schwartz, MC, 35th Infantry Division psychiatrist, early reported the presence of many men who had been in combat and carrying responsibility for too long a period of time. He stated:

> Their work until recently has been highly efficient and beyond reproach. They have never shirked responsibility or a hazardous assignment. Nevertheless, these men have begun to show psychiatric manifestations and inability to take it any longer. Every effort was made to assign these men to less hazardous duty within the division, where they worked adequately and well, apparently honestly desiring to further the war effort, but if returned to combat duty within a few hours to a few days found themselves unable to fulfill their own conscientious desire to lead soldiers in combat.

The 94th Infantry Division, when first committed, was given the job of containing a force of approximately 80,000 Germans over a 300-mile front with the help of a few attached American units and the French Forces of the Interior. This resulted in the clearing company operating as two platoons about 100 miles apart. Capt. (later Maj.) Albert N. Mayers, MC, the psychiatrist, after giving extensive instruction, designated two clearing company physicians, one in each platoon, as assistants. The division psychiatrist traveled from 300 to 600 miles a week, by hitchhiking, or by riding in civilian or military vehicles and, on one occasion, in a horse cart.

The division created battalion rest areas where, in bad weather, the men made Christmas cards and, in good weather, were given problems in which they fired the rifle, which in itself, was a morale builder. In the static situation, few marked cases of anxiety were seen, and more active therapy was instituted. After an initial period of sedation, the men worked on wards, helped operate the clearing station, looked after fires, chopped wood, and served the sick. In some instances, narcosynthesis and hypnocatharsis were used. The psychiatrist found that only the most superficial type of psychotherapy proved helpful. As a rule, the repressive forms of therapy, such as suggestion, reassurance, and firmness, produced better results than the uncovering types.

Armored divisions.—From a general medical and surgical as well as psychiatric standpoint, the armored division presented unique problems.[17]

[17] (1) Mericle, E. W.: The Psychiatric and Tactical Situations in an Armored Division. Bull. U.S. Army M. Dept. 6: 325–334, September 1946. (2) Mericle, E. W.: The Psychiatrist in an Armored Division. Bull. U.S. Army M. Dept. 7: 386–390, April 1947.

Either or both of the armored combat commands could spearhead an attack without the infantry and mushroom behind enemy lines to disrupt communication and supplies, leaving medical support behind. In the armored division, the battalion surgeon constituted the first echelon of medical treatment, and the source of referral to the psychiatrist.

As in the infantry division, the psychiatrist, without table of organization or equipment had to obtain transportation, tentage, mess facilities, enlisted personnel, toilet articles and clothing for patients, mess gear, extra rations, a kitchen, and transportation facilities to evacuate patients or move them when the unit moved. In the armored division, the psychiatrist required help from the medical company, particularly from medical officers and enlisted personnel, so that the treatment section could operate during the psychiatrist's visits to other parts of the division. Here, as in the infantry divisions, it was found necessary to treat each patient as an individual, to provide 1½ rations per day per man, clean or at least dry clothing, equipment for shaving at the earliest possible moment, and facilities for hot showers. As in the infantry divisions, if a treatment area was shelled, it was moved.

Most psychiatric casualties came from the armored infantry units, least from the artillery, with incidence in the tank battalions only slightly greater than in the artillery. Reconnaissance and engineer units had more casualties than tank battalions. Fewer exhaustion cases developed if two men were permitted to occupy a foxhole together. This was done wherever it was not considered unwise from a dispersal point of view. Battalion aid stations gave definitive treatment for psychiatric casualties who could be returned to duty within a few hours. Where more prolonged treatment was required, individuals were evacuated to one of the committed medical companies of the medical battalion for further evacuation to the supporting medical company. Again, the armored divisions found that the earliest treatment, as far forward as the tactical situation would permit, prevented unnecessary evacuation from the division. On occasion, urgent tactical situations made it necessary to evacuate patients who might otherwise have been retained and returned to duty. All armored divisions felt the need of an additional psychiatrist.

Evacuation Hospital Level

Throughout the Third U.S. Army's combat period, there was an average of one evacuation hospital per combat division, ordinarily located at division rear within the corps area. Each of these hospitals had its full complement of MC and ANC officers and enlisted personnel, and fulfilled the criteria for treatment in the field at approximately division level and within sound of gunfire. In fact, many of the hospitals' tents or buildings were damaged by shell fragments from enemy fire. When battlelines fluctuated during rapid

advances, an evacuation hospital transferred its patients laterally to other evacuation hospitals, or to the rear to the convalescent hospital, and reopened well within the division area. This seeking of forward positions resulted in the capture of the nurses of one evacuation hospital and in the death of one hospital commander. General Menninger and Colonel Thompson (fig. 41) visited the 101st Evacuation Hospital when it was situated halfway between the American and enemy lines; the infantry division was evacuating its wounded forward to the evacuation hospital, with both friendly and enemy artillery firing over the hospital.

The evacuation hospital was peculiarly adapted, therefore, for the care of psychiatric casualties who might have had a period of 12 hours' treatment at battalion aid stations, 48 hours at regimental aid station, and up to 4 days at division clearing company. The evacuation hospital was equipped to treat such patients for periods up to 7 days.

Each hospital had its psychiatrist, another medical officer as assistant chief of the psychiatric service, two psychiatrically oriented ANC officers, and six enlisted personnel. These teams had been trained together at the 312th Station Hospital (NP) and functioned together throughout the period of combat.

FIGURE 41.—Col. (later Brig. Gen.) William C. Menninger, MC, Director, Neuropsychiatry Consultants Division, Surgeon General's Office (right), and Col. Lloyd J. Thompson, MC, Senior Consultant in Neuropsychiatry (left).

In the evacuation hospital setting, the psychiatric patient benefited from laboratory and X-ray facilities and consultation with medical and surgical specialists, including the neurosurgeons. The psychiatrist was constantly used as a consultant by the medical and surgical services. An ill or wounded individual with predominantly psychiatric symptoms was easily transferred to the psychiatric service. The patient admitted to the psychiatric service was transferred to the medical or surgical services when indicated, and each patient had available therapeutic facilities of a completely staffed modern hospital.

When the Army was advancing, total casualties, as well as neuropsychiatric casualty rates, were low. In static situations, all casualties increased, and the psychiatric service of an evacuation hospital could have from 80 to 90 patients. The experiences of Capt. Oreon K. Timm, MC, and Capt. Irving S. Schipper, MC, in the 106th and 109th Evacuation Hospitals,[18] respectively, serve as examples of the fluctuating caseloads, and the variable amount and arrangement of tentage necessary in varying circumstances.

The 109th Evacuation Hospital's experience was as follows:

> Twelve men from the platoon assigned to this hospital were given special training in handling psychiatric cases. The application of occupational therapy was particularly stressed. From this group seven men were assigned to the psychiatric service. The chief nurse assigned two nurses who were interested in psychiatric work permanently to the unit. These nurses were trained by the psychiatrist.
>
> Sufficient tentage for a separate unit was assigned to the department and this was erected as a separate group at some distance from the main hospital.
>
> The clearing company platoon was set up nearby and included a mess utilized in feeding the neuropsychiatric patients. Ambulant patients of this group went to their meals and carried the trays over for the bed patients. They washed all dishes used on the ward.
>
> Patients were routinely given 4 days of sedation but this routine was varied freely to meet individual requirements. Following the period of sedation, they were transferred to a convalescent tent. A radio was provided in this tent so that broadcasts, especially news, could be picked up at such times as the patients were not on detail assignment.
>
> As each patient was transferred to the convalescent ward he was assigned a detail. These details were designed so that the patient was doing useful work. Jobs which might carry a punitive significance were avoided. Thus these patients were required to wash their own dishes and those of their fellow patients who could not get out of bed, but they were not permitted to do other "KP."
>
> A place for one man was found in the X-ray department, two men were assigned to central surgical supply, three men to the medical wards, three to the unit detachment commander, and the remainder were kept busy on the wards of the neuropsychiatric service.
>
> These assignments, particularly those off the wards, effectively counteracted the tendency of patients to congregate in groups where an unhealthy mental atmosphere (for this type of patient) was prone to develop. They also helped to turn the patient's interests away from himself.
>
> Psychotherapy was also administered in the conventional ways by means of individual interviews.

[18] Personal communications to the author (P. C. T.).

The 106th Evacuation Hospital's experience was reported as follows:

D-day found us at Moreton acting as a transit hospital; and while we had provided some 80 psychiatric beds, we never at any one time had a total of 40 patients. Here we used Sodium Amytal narcosis routinely along with psychotherapy and rest, rest, and more rest. All patients were shaved, showered, and given some hot soup on admission and all they could eat of good solid food during their stay. All patients had to be evacuated as per Army policy. We had a few occasions to use Pentothal Sodium hypnosis in a limited number of cases of amnesia with rather excellent results.

Our early work in the Normandy campaign was practically devoid of psychiatry. All psychiatric cases were being side tracked to an exhaustion center and we cared for internal medicine patients.

On our return to Third Army in August we immediately again began practicing psychiatry and the 40 beds made available to us were quite ample for the work. The Third Army was racing across France; the doughboy's morale was very high and resistance was slight. So were our psychiatric casualties. During this phase of our work we handled 26 psychiatric cases out of a total of 627 cases for the hospital. We again used Sodium Amytal narcosis exclusively along with psychotherapy and a bright mental outlook. At all times patients were shaved, showered and well fed. The narcosis therapy supplied a calm and restful sleep.

We hit our first snag between Verdun and Metz. Here our troops met stubborn resistance; fierce fighting, and terrific casualties. Up to 1 October we handled 419 psychiatric cases out of a total of 2,336 cases for the entire hospital. The soldiers' morale was quite low, our casualties were quite high and the German resistance quite fierce. Here, true to form, the tactical situation determined our casualties. Our infantrymen weren't being relieved; they were being pinned down for days under enemy artillery barrages and were going for prolonged periods without food. The weather was cooler and rain and mud were also demoralizing factors. There was no letup—no relaxation. Sleeplessness, hunger and the anxiety for self preservation brought about a marked rise in our cases.

Our 40 beds were now insufficient. We added another 40 beds but that, too, proved insufficient. The commanding officer of our hospital then had the clearing company attached to us set up three double squad tents and one single squad tent. This gave us an additional 128 beds and relieved the stress on the rest of the Hospital. We used inexperienced help from the clearing company and put on a day nurse and a night nurse to aid there. At the clearing area attached to the Hospital we used nothing but Sodium Amytal narcosis, rest, and psychotherapy. The more resistant cases were all cared for at the Hospital proper where we continued the use of Pentothal Sodium hypnosis and again with considerable and spectacular success in cases of amnesia. All this in addition to the routine therapy we had established.

The chief symptomatology noted included headaches, backaches, aural disturbances and gastrointestinal symptoms of all sorts. Nearly every patient without exception complained of severe continuous headaches. Low back pain was also almost universal among these patients. Next in order of frequency were ear complaints—tinnitus and deafness. The gastrointestinal symptoms included nausea, vomiting, abdominal pain and diarrhea.

Throughout our work mass psychotherapy was used. Upon admission all soldiers were reassured that they would get well, and that all would see full duty again with their outfits. They were then told to clean up, shave, shower and were given hot drinks and sent to meals. Very few patients were fed. Few true psychoses were seen. Most recoveries were spontaneous and our percentage of cases sent back to duty was 67 percent.

Convalescent Hospital

It had been anticipated that many psychiatric casualties who might otherwise be returned to full combat duty would be lost to the Third U.S. Army because of tactical necessity, the relatively short periods of therapy in evacuation hospitals, and rapid moves. For these reasons, the convalescent hospital was equipped with a clinical section and a comprehensive, intensive, and graded rehabilitation program. It seemed ideally adapted for handling psychiatric casualties. When the 7th and 8th Convalescent Hospitals were removed from the direct control of the Third Army on the Continent, three psychiatrists, Capt. Israel S. Freiman, MC, Capt. Richard E. H. Duisberg, MC, and Capt. Harry J. Portman, MC, and 18 medical technicians were transferred to the 6th Convalescent Hospital.

The convalescent hospital was a 3,000-bed facility, operating within the Third U.S. Army, generally at the level of the evacuation hospitals or just behind them. In the line of evacuation, it operated lateral to the evacuation hospitals, receiving its cases from them. It dealt with minor casualties, ambulatory patients, and, in general, patients who were expected to recover within a 2- to 3-week period.

The hospital comprised a clinical section for the treatment of acute illness, and a convalescent section for recovering patients. The clinical section provided from 300 to 500 beds and was divided into medical and surgical services with provision for the various specialties. The psychiatric section was part of the medical service. The convalescent section was organized as a battalion of six companies. The hospital had no Army nurses.

Psychiatric section

The psychiatric section had two parts—a ward or clinical section for the treatment and observation of acute cases, and a rehabilitation section for those recovering after preliminary treatment and for the milder reactions. The psychiatrists functioned in the clinical section. Patients in the rehabilitation section continued to receive psychiatric treatment in the clinical section.

Capacity was elastic; from 50 to 100 beds were available in the clinical section, but transfer of patients to the convalescent companies made it possible to treat as many as 330 psychiatric patients in the hospital at one time. At such times, a fourth psychiatrist was added. More commonly, the section averaged from 150 to 200 patients. The time allotted for treatment was 2 to 3 weeks. The average hospital stay of 1,000 patients was 10.25 days.

On admission, the patient was assigned to one of the psychiatrists for his entire stay. A thorough history was taken, a physical examination was performed, and a tentative diagnosis and evaluation were made. Patients with acute conditions were assigned to the ward and appropriate treatment begun. On completion of treatment, if the condition permitted, the patient

was transferred to the rehabilitation section. Patients with sufficient preliminary treatment, who showed improvement, were admitted directly to the rehabilitation section.

In the more strictly military rehabilitation section, the patient was personally held responsible for normal soldierly conduct and bearing. He took part in the general convalescent program and was subject to all Army rules and regulations. Recreational opportunities included Red Cross facilities, entertainment, motion pictures, games, crafts, athletics, association with other patients, letter writing, and religious services.

In the initial phase, psychiatric patients were included in the general convalescent program. Except for treatment, they were not under direct supervision. It was believed that mixing freely with the general patients would remove the stigma of psychiatric disorder and, further, that the psychiatric patients would gain from the healthier attitudes of other patients. Without adequate supervision, however, psychiatric patients lagged in interest and cooperation. Later, patients were more and more under direct supervision of the psychiatrists. While the hospital was set up in tents, all psychiatric convalescent patients were placed in one convalescent company, supervised by a psychiatric NCO (noncommissioned officer). When the hospital was located in buildings, all psychiatric patients, both acute and convalescent, were housed in one building. This proved to be the best arrangement, as it was now possible to supervise patients' activities thoroughly throughout the day. No untoward effects were observed from concentrating all the psychiatric patients in one group.

The types of patients treated were as follows:

Diagnosis		*Percent*
Psychoneuroses		84.3
Anxiety states	71.0	
Hysteria states	11.0	
Other types [1]	18.0	
Other neuropsychiatric diagnoses:		
Organic disorders including blast		9.9
Constitutional psychopathic states		3.7
Psychoses, all types		1.0
Mental deficiency		.6
Alcoholism		.3
Epilepsy		.2
Total		100.0

[1] Included reactive depression, neurasthenia, obsessive-compulsive disorders, and mixed types.

Psychosomatic gastric disorders were common. Many patients claimed that anxiety symptoms were the effects of blast. Organic neurological findings were rare. Before admission, patients had been under treatment, either at the evacuation hospital or at the clearing station, or both, for periods up to 10 days. The average for 1,000 consecutive patients admitted

was 4.95 days of previous hospitalization. When the evacuation hospitals were filled, patients were often received directly from forward echelons, including field hospitals.

Thus, admissions included acute hysterical reactions, amnesias, hysterical palsies, stupor reactions and mute states, confusional fugue reactions, and acute panic and excitement. Patients admitted for injuries or wounds were frequently transferred from other services in the hospital, when they were found to have considerable anxiety or depression. The neuropsychiatric department conducted an active neurological and psychiatric consultation service for the remainder of the hospital. Casualties with head injury and blast syndrome were frequently admitted to the service because of the predominance of psychiatric symptoms. Patients were often admitted directly from units in the hospital vicinity for observation and treatment. There were nonbattle reactions of various types, including psychoses. Normally, psychotic reactions were not sent to the convalescent hospital.

Treatment

Sedation.—Treatment by sedation depended on the condition of the patient. If sufficient anxiety was present, patients who had not had previous continuous sedation with Amytal were admitted to the ward and given continuous sedation with Sodium Amytal to the point of sleep as initial treatment. The basic dosage was 24 grains daily, in three doses, increased as needed, and continued for 2 days. A third day was allowed for recovery. Other patients received ordinary sedation, without attempting to maintain sleep. Phenobarbital was used for this purpose.

Ventilation therapy.—In the more severe reactions, such as severe anxiety states and amnesias, fugue states, stupor reactions, and conversion hysteria, psychotherapy under sedation was used. Sodium Pentothal was the drug of choice for this purpose. To a lesser extent, Sodium Amytal was used intravenously. Ether, used for the same purpose, was found to produce a lighter, briefer state of narcosis during which the patient was amenable to suggestion. Ether abreactions were obtained as with Pentothal, requiring less apparatus and preparation. With ventilation procedures, abreaction was frequently followed by improvement in the anxiety and other symptoms. However, the emotional discharge was not always elicited. A straightforward account of combat experiences without any undue emotional accompaniment was often followed by improvement. Patients received one or two ventilation treatments. Those requiring more treatment of this type were evacuated.

Insulin therapy.—Insulin was administered in precoma doses of 40 to 80 units daily for 7 to 10 days to a small group of cases in whom there was a continuing anxiety or depression, or much weight loss. Some patients were benefited. A few with psychosomatic gastric symptoms were helped. Most

gained from 5 to 10 pounds. Many gained temporarily in appetite, and lapsed when treatment was terminated. No significant sedative effect was observed.

Group organized activity.—Patients transferred to the rehabilitation section began organized group activity under the supervision of a psychiatrist and neuropsychiatric technicians. Selected NCO's among the patients acted as monitors over small groups, keeping the patient reasonably occupied throughout the day. The fixed schedule included calisthenics, athletics, games in suitable weather, and leisure time. Poor weather was a great handicap when the hospital was in tents. When in buildings, a gymnasium and a theater were developed.

Group psychotherapy.—This was directed by one of the psychiatrists. Three such discussion groups met each week, each of the psychiatrists supervising one session.

Individual activity.—As many patients as possible were assigned jobs about the hospital in accordance with their experience, inclinations, and interest. The work was self-determined to a considerable extent. Patients were employed as clerks, runners, in the utility shop, mess, supply, and on the wards. Patients asked for job assignment. Many showed visible clinical progress while at work, and there were increasing requests for the services of psychiatric patients by other departments.

Temporary projects were devised in which patients collaborated toward a definite goal. The diversified projects included making furniture and equipment, repairing the building, constructing blackout screens, and painting. Patients with musical or dramatic talent took part in group entertainment under the supervision of the Red Cross staff. Attempts were made to utilize special talents.

In the arts and crafts shop, patients worked as they pleased on their own projects, such as weaving, painting, drawing, woodwork, metalwork, leather, and sculpture. Soft stone discovered in the neighborhood was used for carving ashtrays, bookends, and the like.

The aim in the rehabilitation program was to keep each man busy, as far as possible, without coercion and with encouragement.

Throughout their stay in the hospital, patients were cared for by one psychiatrist who managed his own group of patients more or less independently. This arrangement emphasized the personal therapeutic relationship of each patient with his own physician.

Individual psychotherapy.—Each patient was evaluated carefully, and therapy was individually applied as indicated. Each patient was seen at regular intervals of 3 to 5 days. No effort was made to administer intensive therapy if not required. Soldiers were returned to duty as soon as their condition permitted.

Types of duty.—Prolonged observation of adjustment within the program and repeated interviews gave much insight into the individual patient's

behavior and made it possible to assess total personality and serviceability with some accuracy.

Results.—Results of the program were satisfactory. It should be borne in mind that the patients seen at the convalescent hospital did not represent the most favorable cases arising out of combat. The least severe and most readily recoverable had already been returned to duty by forward echelons. Thus, at the level of the division clearing stations and the evacuation hospitals, 71.9 percent of the neuropsychiatric patients had already been returned to duty. Convalescent hospital patients were received from among those who had not recovered at forward levels, within the 7 to 10 days of treatment allotted at those levels. Of this group, those with unfavorable prognosis were evacuated to general hospitals by the evacuation hospitals. The more favorable were sent to the convalescent hospital for treatment. Of 1,941 patients treated, 88.6 percent were discharged to all types of duty—50.8 percent to full duty, 8.5 percent to noncombat duty with divisions, 29.3 percent to limited service duty in the communications zone—and 11.4 percent were evacuated. The latter included organic neurological illness or injury, psychoses, epilepsy, and mental deficiency.

Treatment at the 6th Convalescent Hospital within the army area reclaimed a considerable number of patients for combat. Ordinarily, they would have been returned to rear echelons with a correspondingly less favorable outlook. Seldom was the patient permitted to believe that he might not return to combat. Seldom was this possibility held out to him to encourage symptomatic recovery, and this only in the case of longstanding psychoneuroses in patients who broke down quickly in combat and whose unfitness for further combat was amply demonstrated.

When full recovery was not possible, the aim was to salvage for useful service those who could not be returned to combat. Treatment was, therefore, provided for unfavorable cases also, in the hope of salvaging such for some type of duty. In the effort to prevent much of the subsequent chronic neurotic sequelae of war, intensive treatment of unfavorable patients at this level was desirable.

The close association of the neuropsychiatric section with a more generalized type of medical facility, such as the convalescent hospital, was found desirable because it provided ready access to laboratory, X-ray, and refraction services, complete dental care, and ready consultation with other specialties. This was frequently necessary in ruling out organic disease and assessing the extent and significance of various injuries and somatic complaints.

The advantages of associating this program with the convalescent hospital were several. Its large organization provided many opportunities to place the patient in useful occupation. The outlook of the psychiatric patient was healthier inasmuch as few convalescent patients were seriously ill, and most went back to duty.

The convalescent hospital was not a fixed installation. It moved as the army moved. Psychiatric patients still in the hospital at the time of movement were left in a rear echelon, under the care of one of the psychiatrists, and treatment was completed before disposition. This service proved to be an important and valuable addition to the psychiatric facilities available at army level. It lengthened the period of treatment at army level and brought definitive psychiatry closer to the front.

The convalescent hospital accounted for approximately 20 percent of all patients returned to duty from hospital level. Because there was no authorized psychiatric table of organization at the convalescent hospital level, its three psychiatrists served throughout the war without promotion. The magnitude and effectiveness of the convalescent hospital operation could well have provided a lieutenant colonelcy and two majorities for these three men.

CONCLUSIONS

Probably the most important lesson learned in the Third U.S. Army's campaign in the European theater was that preventive neuropsychiatry is a command function. All the measures which can be instituted to prevent psychiatric casualties are command prerogatives. First and foremost, the psychotic, mentally deficient, severe psychoneurotic, and epileptic, and those with chronic progressive neurological diseases not only are incapable of fighting but also require the time and interest of others who should be in combat. These men, unsatisfactory for any form of military service, should not be retained in service in the interest of "manpower conservation." When such individuals reach foreign duty and combat units, they constitute a severe liability in the respective units and on the medical evacuation system.

It is necessary for line officers to exercise judgment in evacuating men through medical channels. Soldiers should not be evacuated unless, to the line officer, the medical aspects are clear and unmistakable and not transient in character. The avoidance of indiscriminate evacuation and the selection of proper treatment on the spot are imperative.

In the Third U.S. Army, some medical officers, particularly inexperienced ones, tended to avoid responsibility for psychiatric casualties, and evacuated them. It was necessary for the battalion surgeon to practice minor surgery, internal medicine, and minor neuropsychiatry applying specific therapy, and to return to duty at that level all individuals who were capable of returning.

The conclusion was drawn that psychiatric casualties who can be returned to duty in a period of 12 hours should not be evacuated from the battalion aid station. Those who can be returned to duty with an additional 36 hours of rest and treatment should be handled at the regimental aid

station. Only those who require a longer period of treatment should be evacuated to the clearing station level.

Because of the nature of their assignment, division neuropsychiatrists are in a position to disseminate pertinent information to line officers and to act in a consultant capacity to battalion surgeons. It is, therefore, imperative that each division neuropsychiatrist be provided transportation. Because he personally treated from 5 to 30 percent of the total admissions to the clearing station, the Third U.S. Army division psychiatrist needed an adequate table of organization and equipment. Supplies, personnel, and equipment necessary to the function of the psychiatrist were obtained at the expense of the clearing company, which had an adequate table of organization and equipment for its own needs, but none for others, including psychiatric purposes.

It was definitely demonstrated that psychiatric casualties must be given definite therapy in forward areas, preferably within sound of gunfire. Those patients returned to duty from battalion aid stations had less tendency to relapse than those treated in rear areas.

The importance of assigning well-trained psychiatrists to the divisions cannot be overemphasized. Divisions having such men assigned consistently exhibited a lower neuropsychiatric incidence and a higher return to duty rate than those in which medical officers without such training were arbitrarily assigned as psychiatrists.[19]

During combat, several divisions attempted to treat all neuropsychiatric problems at division rear. It was the invariable experience that the more men sent to the rear, the more it was necessary to return other men to the rear. All divisions eventually instituted therapy in forward areas and found that the fewer evacuated, the smaller the number necessary to evacuate. This was clearly demonstrated, particularly in those divisions which first set up an exhaustion center in division rear and then changed to treating such patients at aid station level.

It was notable that every effort to prevent trenchfoot and to provide warm clothing contributed to a low neuropsychiatric incidence.

Armored divisions were so constituted that it was always difficult and sometimes impossible to handle psychiatric casualties at aid station level. This was particularly true in rapidly moving tactical situations. It was necessary to set up a clearing element in each armored division in which the division neuropsychiatrist could treat all psychiatric casualties evacuated from the aid station. Most psychiatric cases in an armored division occurred in the armored infantry. For every such case among the tankers, there were

[19] Thus far, this conclusion has not been substantiated by statistical data. In actuality, during World War II, medical officers without formal training or experience in psychiatry, but well motivated and indoctrinated by various brief courses of instruction up to 90 days, demonstrated, in a majority of instances, effective functioning as division psychiatrists. This experience with "90-day wonders" was again repeated during the Korean War with similar satisfactory results.—A. J. G.

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six in the armored infantry. The rate pyramided among the tankers on one occasion when it was necessary for them to function as foot troops.

Rumors contributed to peaks in the incidence of neuropsychiatric cases. Terrain, climatic conditions, type of enemy opposition, and quality of leadership also influenced the neuropsychiatric incidence. Those divisions which rotated units whenever the tactical situation permitted had a lower incidence than those which could not or did not.

It was found that after 120 days of continuous combat, riflemen, and, particularly, key noncommissioned officers began to exhibit less initiative, lower efficiency, and decreased ability to lead troops into battle. This process of normal wear and tear was even more marked at the end of 6 months of combat. One division found that only 3 percent of the riflemen who had been in combat for 180 days still remained in the division. Those who did remain were keymen and, in general, repeatedly decorated heroes. It was estimated that half of this group had become useless for combat in the same manner that equipment wore out to the extent that it was of no further service.

Although many neuropsychiatric cases to all intents and purposes were well when returned to duty, there was, in many instances, a lack of confidence which was overcome only after the individual had again engaged in combat. Many of these men, after return, earned awards for heroism. Some received battlefield commissions, and a high percentage were promoted up to grades including master sergeant.

Soldiers who had been wounded and returned to duty were more likely to become psychiatric casualties than those who had not been wounded, or those who had been wounded and who had not returned to combat duty because of the severity of the wound.

Neuropsychiatric patients who were ready to return to combat tended not to have a recurrence of their symptoms when sent directly to combat. Among those retained for several days in replacement areas, however, a high percentage tended to have a recurrence.

A division increase in psychiatric casualties could usually be traced to one regiment and specifically to one battalion. As a rule, the increase occurred in the unit which was experiencing the most severe combat. The incidence could also reflect the influence of leadership. Failure in leadership may be relative in that excellence of leadership may be counterbalanced by such factors as weather, terrain, or enemy opposition; or, it may fail because of loss of officers. Failure of leadership was reflected throughout the entire unit, and an increased neuropsychiatric incidence was only one of its implications.

If the individual needs positive command or encouragement, the line officer should give it to him without evacuation through medical channels. If he needs rest, his commanding officer should provide it. If the tactical situation and breadth of front prevent rotation of units, it is necessary to

rest individuals. This was accomplished at platoon and company level by the unit commanders. Divisions provided for rest areas at battalion bivouac areas, regimental train areas, and, in several instances, division rest areas were instituted in division rear areas. Where such a program was accomplished, there was an immediate drop in the number of psychiatric casualties.

It was found necessary to permit psychiatrists in all echelons to have facilities for the practice of good medicine. At division clearing station level, the psychiatrist had an opportunity for mutual consultation with other physicians, and access to X-ray service in the field hospital platoon assigned to his division. A psychiatrist functioned at each evacuation hospital. As a result, psychiatric casualties did not cross normal channels of evacuation, but on leaving the division went directly to the nearest evacuation hospital. Here the psychiatrist was called in consultation on a minimum of 5 percent of all admissions other than neuropsychiatric. He had at hand every facility for X-ray and laboratory diagnosis and consultation with other specialists. This contributed to more accurate diagnosis and, therefore, a higher return to duty rate.

Because of the fairly frequent moves of the evacuation hospitals, and the Army evacuation policy, psychiatric casualties could be retained in the evacuation hospitals an average of 6 days. At the end of this time, patients were found to fall roughly into four groups:

1. Those who had other medical or surgical conditions and in whom there was little or no evidence of nervous or mental disease.

2. Those who could be returned to duty within the 6-day period.

3. Those who, in the opinion of the psychiatrist, were incapable of further duty because of psychosis, epilepsy, mental deficiency, and severe prolonged psychoneurosis.

4. Those who could be returned to duty with 2 or 3 weeks of additional therapy.

The first group was transferred to other hospital services. The second returned to duty. The third was evacuated to the communications zone. If the fourth group had been evacuated out of the Army area, many of the individuals would have been lost if they had been transferred to communications zone hospitals. It was found necessary to provide an additional echelon of therapy for this group—the convalescent hospital. For the practice of good clinical medicine, there were facilities for mutual consultation with other specialists and X-ray and laboratory diagnosis as well as intensive individual and group psychotherapy, recreational and occupational therapy, and a graded intensive physical training program. Eighty-five percent of this group returned to duty within the Army, and 50 percent to full duty.

Through the operational period of the Third U.S. Army, neuropsychiatric casualties represented 7.0 percent of total nonfatal casualties, and 74.3

percent of these casualties were returned to duty of all types. The factors involved were considered to be:

1. The institution of a program designed to train line officers and battalion surgeons in the recognition and handling of the neuropsychiatric casualties.
2. Insistence on treatment as far forward as possible.
3. Therapy in echelon with return of patients to duty from the first echelon at which recovery could be obtained.
4. Obtaining and placing well-trained neuropsychiatrists at division, evacuation hospital, and convalescent hospital levels.

Section III. Seventh U.S. Army

Alfred O. Ludwig, M.D.

ORGANIZATION AND DEVELOPMENT

The psychiatric service of the Seventh U.S. Army began in July 1944 when Capt. (later Maj.) Alfred O. Ludwig, MC, of the Fifth U.S. Army psychiatric forward treatment center (the 601st Clearing Company), was assigned to Headquarters, Seventh U.S. Army, as the Consultant in Neuropsychiatry to the Surgeon, Seventh U.S. Army, Col. Myron P. Rudolph, MC.[20] This occurred before the Army's campaign in southern France, when its Medical Section was based in Naples, Italy. The short interval remaining before embarkation for the invasion, D-day, which had been set for 15 August 1944, left little time to make the necessary preparations.

Directives were drawn up for the management of psychiatric casualties, based on the principles which had been found useful and practical in the Fifth U.S. Army during its campaign in Italy.

Capt. (later Maj.) Stephen W. Ranson, MC, also of the Fifth U.S. Army psychiatric center, was transferred at the same time to provide a trained psychiatrist with experience in the management of combat-induced psychiatric casualties, to take charge of the first treatment center established in the Seventh U.S. Army. For this purpose, a platoon of the 616th Clearing Company was designated. This platoon was to be sent into southern France on D-day, following the assault troops.

Captains Ludwig and Ranson landed on D-day at about H+8. The 2d Platoon of the 616th Clearing Company was located and put into operation on D+6. As in Italy, the clearing station was augmented by additional personnel (85 enlisted men and four psychiatrists) and equipment, over and above the usual table of organization and equipment for such an installation, to furnish adequate facilities for treatment of 250 patients. Un-

[20] Unless otherwise noted, the material presented in this section was taken from annual reports by the Consultant in Neuropsychiatry to the Surgeon, Seventh U.S. Army, 1944 and 1945.

fortunately, however, because of prior commitments, it had not been possible to organize and train this unit before actual operations.[21]

Evacuation hospitals were instructed to send to the Army psychiatric treatment center all cases with primary psychiatric diagnoses; also, cases with other diagnoses when it became evident that the problem was mainly psychiatric. Evacuation hospitals were further advised to be alert to the appearance of psychosomatic syndromes. Psychiatric casualties masquerading under organic diagnoses were often lost for combat or further service if subjected to unnecessary diagnostic investigation, organic treatment, or prolonged hospitalization. In Italy, experience had been that a large percentage of these cases, when acute, could be salvaged for combat if properly treated on a psychiatric basis.

Fortunately, the fighting and thus the incidence of psychiatric casualties was low during the landing in southern France and during the first months of the campaign. As enemy opposition stiffened, the number of psychiatric cases again increased. Psychiatric casualty production was further influenced by the fact that the three infantry divisions which participated in the landing, the 3d, 36th, and 45th, all had had long combat service in North Africa, Sicily, and Italy.

Before D+6, the few psychiatric casualties that occurred were handled in the beach collecting-clearing units and, subsequently, by the division psychiatrist when they reached the division clearing station. In the landing operations of the Seventh U.S. Army in southern France, necessity dictated that one clearing company furnish installations for both the psychiatric and venereal disease treatment centers, and one platoon was utilized for each of these two purposes. There were difficulties in providing adequate personnel for two such units from the additional elements of the collecting companies in one medical battalion.[22]

As in the Fifth U.S. Army, the forward psychiatric treatment center in the Seventh U.S. Army moved with the evacuation hospitals, remaining always in about the same relative position to the front.

Some difficulty was engendered by the rapid advance during the first month of the campaign, which covered nearly 400 miles from the coast (map 16). This necessitated frequent moves over long distances, and made it difficult to hold patients for return to duty. This problem was dealt with by processing as many patients as possible before each move, frequently evacuating those incapable of return to combat, and moving the remainder,

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[21] It is preferable that such an installation be fully organized and trained for this special work before landing, and it should arrive ready to function at the same time as the 400-bed evacuation hospitals. In this way, control, centralization of treatment, and high rates of salvage for duty of combat-induced psychiatric casualties become possible, especially for the cases which cannot be held at division clearing stations.—A. O. L.

[22] It is more advantageous to form two special installations from the clearing companies of two different medical battalions. It was not considered advisable to operate a venereal disease and a psychiatric treatment center within the same hospital area, and the resulting spatial separation complicated the administration of the two platoons fulfilling these different functions. Administration would be facilitated by autonomy of operation for separate platoons operating provisional hospitals.—A. O. L.

MAP 16.—Campaign in southern France, 15 August–15 September 1944.

who needed further treatment, forward with the center. In this way, the maximum number of cases were salvaged for combat.

Another difficulty was the lack of adequately trained psychiatrists. Only three were available at the time of the landing, and it became necessary to use the other medical officers who had been assigned to the clearing platoon. They were rapidly trained by the attached psychiatrists and, in time, functioned adequately. Wartime experience indicates that medical officers can readily learn the principles of combat military psychiatry. However, supervision by psychiatrists was needed to assure the effective management of complicated or obscure mental cases.

Insufficient TO (table of organization) positions for psychiatrists necessitated attaching such officers, usually from base hospitals, to the Army provisional psychiatric centers on a temporary duty status. This arrangement created administrative difficulties and blocked promotion for the psychiatrist who had left his assigned hospital short a medical officer. It seemed highly desirable to establish a permanent table of organization and equipment for a forward psychiatric treatment center.

As the campaign of the Seventh U.S. Army in southern France continued, new divisions were constantly added. This made it necessary eventually to establish the second forward treatment center. Both platoons of the 682d Clearing Company were utilized for this purpose, which avoided the difficulty of providing additional enlisted personnel from other units as had been necessary in the 616th Clearing Company. The 682d Clearing Company began operation as a psychiatric treatment center in the last week in October of 1944. It served troops in the VI Corps while the 616th Clearing Platoon served those in the XV Corps.

CARE AND INCIDENCE OF PSYCHIATRIC CASUALTIES

From the start, a realistic approach to the management of psychiatric casualties by all medical personnel, from the battalion aid station to all Army hospital levels, was encouraged. It was essential that psychiatric casualties be carefully differentiated from individuals who were attempting to avoid duty because of poor motivation. All division psychiatrists had performed creditably in controlling the rate of psychiatric breakdown. In this respect, the Seventh U.S. Army was fortunate because, initially, it had divisions experienced in previous combat. Furthermore, these divisions all had assigned psychiatrists with considerable military experience and psychiatric training; namely, Capt. Joseph Robert Campbell, MC, in the 3d Infantry Division; Maj. Douglas G. Kelling, MC, in the 45th Infantry Division; and Maj. Walter L. Ford, MC, in the 36th Infantry Division.

Many patients were held and returned to duty within the division. Through the efforts of the division psychiatrist, the salvage rates for psychiatric casualties were much higher in 1944 than in the earlier phases of the

Italian campaign before division psychiatrists were authorized. Division psychiatrists had also performed a useful service by indoctrinating medical personnel with a realistic approach to the problem of the psychiatric casualty.

As in the Fifth U.S. Army, the Seventh U.S. Army treatment center served a dual purpose. It supplemented the treatment and screening facilities available to division psychiatrists, thus increasing the number of patients returned to full combat duty. Also, it served a highly useful function of beginning the rehabilitation of patients who were no longer able to return to combat. In this way, many soldiers were saved for further duty within the theater, which prevented the fixation of symptoms. In the Seventh U.S. Army, psychiatric services aimed to remove symptoms as completely as possible in all patients who were to be sent farther to the rear.

Followup studies indicated that most evacuated patients arrived in base hospitals in good condition and with relatively few symptoms, usually ready for almost immediate reclassification for limited service.

As in Italy, an important factor in rehabilitation was rapid return to useful work. Soldiers who broke down while fighting lost their ability to adapt under combat conditions; also, their ability to accept responsibility or stress even in noncombat was impaired, as indicated by the exacerbation of symptoms and reduction of efficiency. These manifestations were not "cured" simply by removing the soldier from combat, but progressed as long as they were allowed to persist untreated. Secondary gain appeared and symptoms then became necessary to the soldier, not only to alleviate guilt feeling but also to avoid any responsibility.

Most of the soldiers in the group who required evacuation to the rear frequently felt much more comfortable working, thus atoning for the guilt for having left their buddies at the front. Work that in some way furthered the war effort and, as had been found in Italy, directly helped their buddies at the front, proved even more advantageous for adjustment and removal of symptoms.

In the Seventh U.S. Army, a special effort was made to reassign some of these men to noncombat positions within the Army without reclassification. It was difficult to accomplish such reassignment for the number of noncombat vacancies was small. All who were so reassigned, however, served satisfactorily.[23]

A report early in January 1945, from the Army consultant in neuropsychiatry to the Surgeon, Seventh U.S. Army, pointed out that the psychiatric case rates observed varied considerably during the campaign in southern France. As in Italy, these rates were related to the intensity of

[23] It was our belief that rehabilitation of these patients could be furthered if reclassification powers were made available to Army installations. If psychiatric casualties who were suitable for work in rear areas could be reclassified within the Army, they could be sent to replacement centers for reassignment within a week of the hospitalization, obviate the reduplication of work and the needless occupancy of bed space in base installations, and greatly enhance the fundamental therapeutic aims.—A. O. L.

battle and "under usual combat conditions" occurred in ratios from 10 to 15 percent of the total battle casualties. However, they were also influenced by the state of leadership and morale within the unit—the fatigue of the troops, their cumulative combat exposure, the nature of their mission—by the weather, by the type of terrain in which the operation had to be carried out, and, finally, by the success or failure of the particular mission in which they were engaged.

Chart 4 shows the disposition of psychiatric casualties by psychiatrists within the divisions. The divisions were divided into two groups: three "new" divisions, consisting of the 44th, 103d, and 100th Infantry Divisions, and two "old" divisions, the 3d and 36th Infantry Divisions. The 44th Division was committed on 15 October 1944, and the 100th and 103d, about 15 November 1944. The 3d Division participated in the North African landings and the Sicilian and Italian campaigns; the 36th, first committed at Salerno, was engaged in the campaign in southern Italy, including the Anzio beachhead. The 36th was involved in particularly severe fighting, with heavy losses, during the Rapido River crossing on 20 January 1944. Both old divisions made the initial assault in southern France on 15 August 1944, and had been in almost continuous action since.

New divisions.—A much higher number of psychiatric casualties were returned to duty in the "new" than in the "old" divisions. This must have resulted from the presence of many fresh troops in the new divisions as contrasted with the large number of veterans with long combat exposure in the old divisions. Probably, a further explanation was the difference in adequacy of forward screening in the two groups of divisions. In inexperienced divisions, battalion surgeons were unfamiliar with the management of combat-induced psychiatric illness; often, they had not yet learned that it was essential to hold salvageable cases at the aid station for return to duty at this level rather than evacuate to the division clearing station. In the group of old divisions, this lesson had been learned by experience and by necessity. The higher duty returns from the newly committed divisions were probably also influenced by screening out soldiers of doubtful capacity before leaving for overseas. This was made possible because psychiatrists had been assigned to the division for long periods during its training. The soldiers in the newly committed divisions had had little combat experience and were prone to develop milder disorders, which could be more effectively treated at the division level.

Old divisions.—In the two old divisions, the psychiatric rates were very low from 15 August to 15 September 1944. At this time, the enemy was withdrawing rapidly from southern France and action consisted primarily of pursuit. Morale was very high and most of the men believed that the end of the war was imminent. After 15 September, opposition increased, the weather worsened, and the terrain became difficult. Cumulative fatigue began to take its toll. In both old divisions, the largest percentage of psychi-

atric casualties occurred among men who had the longest combat service. Such men could not be salvaged for further combat either in the division or in the Army treatment center, and needed to be evacuated for eventual noncombat service. The low return to duty from the clearing stations of these "old" divisions reflected the efficient screening methods employed within the divisions, at the battalion aid station level.

There was a marked difference in the incidence of psychiatric casualties between the 3d and 36th Infantry Divisions. Psychiatric casualties had been consistently low in the 3d Division during the Italian campaign, probably because the division had always exercised command control over the evacuation of "exhaustion" cases from the battlefield. This division required that nonwounded soldiers obtain permission from their commanding officers before going to the aid station. Its leadership, morale, and unit pride had always been extremely high.

The 36th Division, on the other hand, had been subjected to very severe losses during the fighting in Italy. In southern France, casualties among the officers of two of its regiments had been unusually high. Table 39 shows the relative incidence of battle casualties with psychiatric casualties in three regiments, from 15 August to 15 December 1944.

Apparently, the rapid turnover of officers in regiments A and B hampered the command evacuation for control of "exhaustion." Loss of morale and confidence was a further consequence of this unfortunate situation. Although the battle casualties in all three regiments were comparable, the psychiatric casualty percentage was twice as high in regiments A and B as in regiment C. These figures demonstrated the close correlation of the factor of leadership or the loss of leaders and psychiatric incidence rates.

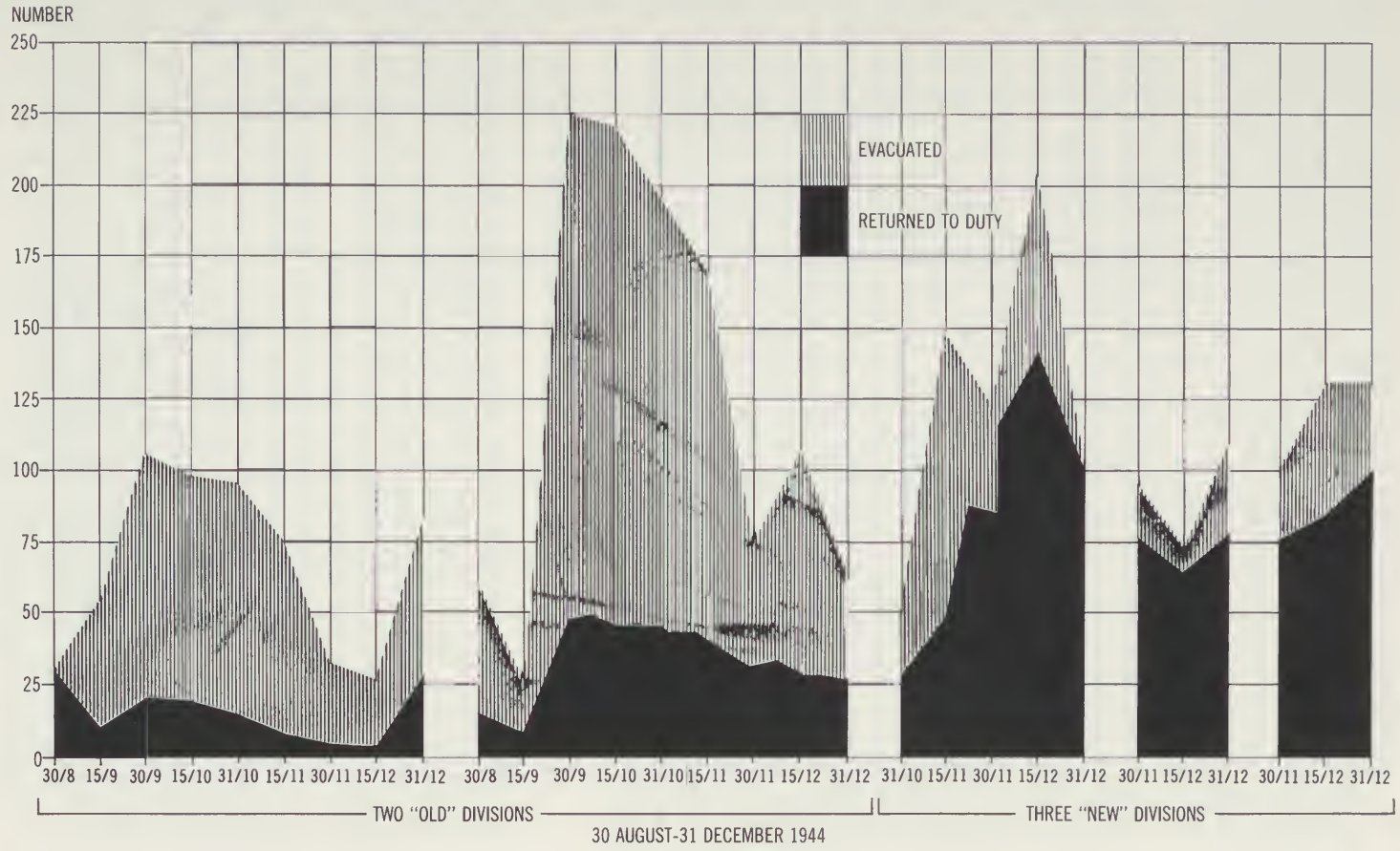
Chart 4 shows psychiatric casualties in both old divisions between 30 September and 15 November 1944. These mirrored the breakdown of many soldiers with long combat exposure from the two divisions. By the end of November, this group had largely disappeared by evacuation, and after this date, the curves for the old and new group divisions are similar. Nevertheless, the duty returns remained low in the old divisions.

TABLE 39.—*Incidence of psychiatric casualties and battle casualties, in three regiments, 36th Infantry Division, 15 August–15 December 1944*

Regiment	Total casualties	Battle casualties	Psychiatric casualties	
	Number	*Number*	*Number*	*Percent*
A	1,948	1,612	336	17.2
B	1,686	1,415	271	16.1
C	1,583	1,460	123	7.8

Source: Annual Report, Surgeon, Seventh U.S. Army, 1944, p. 54.

CHART 4.—*Disposition, return to duty, of psychiatric casualties from division clearing stations, Seventh U.S. Army, 30 August–31 December 1944*



45th Infantry Division.—Table 40 gives the results of a study made of psychiatric casualties evacuated from the 45th Infantry Division, the third of the three "old" divisions which originally landed in southern France with the Seventh U.S. Army. This division also had had long combat exposure in Sicily and in Italy, including the Anzio beachhead, before the invasion of southern France. It was staffed with experienced medical officers and a veteran division psychiatrist.

Nearly 50 percent of the men lost for psychiatric reasons from this division had been exposed to combat for more than 8 months. Thirty percent of the psychiatric casualties consisted of noncommissioned officers, largely in the grade of sergeant or higher. This group represented individuals who "burned out" in combat. As a rule, such cases from this and other divisions with comparable combat exposure were basically stable individuals. Almost invariably, they had performed with high efficiency in combat for long periods. Usually, they were sent from the battlefield by unit commanding officers, rather than having themselves sought evacuation; frequently, they were also given commendatory letters by these officers. As a rule, reclassification for noncombat service was necessary and was requested, not only by their line officers but also by the division psychiatrist. All these men had a high sense of duty and loyalty, but finally broke down under the prolonged stress of combat, with the additional stress factors of insufficient rest and the progressive loss of most or all of the old friends with whom they had trained and come overseas. At the time of the study, it appeared that the percentage of men so lost could not be minimized by any method short of an effective rotation system.[24]

FUNCTIONS OF THE CONSULTANT IN NEUROPSYCHIATRY

The primary function of the Army consultant in neuropsychiatry was to advise the Army surgeon on all matters pertaining to the care and management of psychiatric casualties. He formulated policies for holding, treating, and evacuating such psychiatric casualties, and defined the criteria to be used for these actions. He prepared, for issuance from the surgeon's office, directives necessary to carry out these functions.

The Army consultant in neuropsychiatry was responsible for staffing the Army psychiatric treatment center and the evacuation hospitals, if necessary, with properly trained psychiatrists, where indicated. This required liaison with the base commands and with the theater senior consultant in neuropsychiatry so that needed and feasible transfers from base to Army medical facilities could be made. He cooperated with the personnel officer of the Medical Section of Army headquarters, in initiating transfers of appropriately qualified psychiatrists between Army medical installations.

The Army psychiatrist maintained active liaison, not only with his

[24] Again the "old sergeant syndrome."—A. J. G.

TABLE 40.—*Distribution by rank and combat time, during a 6-week period, of psychiatric casualties evacuated from 45th Infantry Division, Seventh U.S. Army*

Rank of patients	Combat time										Total each rank	
	Less than 1 month		1–3 months		3–6 months		6–8 months		Over 8 months			
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*
Technical sergeant	1	20.0	0		1	20.0	0		3	60.0	5	1.8
Staff sergeant	1	3.2	1	3.2	6	19.4	4	12.9	19	61.3	31	10.9
Sergeant, or technician 4th grade	0		4	12.1	12	36.4	3	9.1	14	42.4	33	11.6
Corporal, or technician 5th grade	1	5.6	2	11.1	6	33.3	0		9	50.0	18	6.3
Private, first class or private	5	2.5	37	18.8	47	23.9	16	8.1	92	46.7	197	69.4
Total and average	8	2.8	44	15.5	72	25.4	23	8.1	137	48.2	284	100.0

Source: Annual Report, Surgeon, Seventh U.S. Army, 1944, p. 55.

Army treatment centers and its assigned psychiatrists, but also with the division psychiatrists. He indoctrinated the division psychiatrist of each new division relative to past experiences with psychiatric casualties. Both in Italy and later in the Seventh U.S. Army, the inexperienced division psychiatrists of newly committed divisions tended to be somewhat incredulous of the military practice of psychiatry, and often clung to erroneous concepts and beliefs, acquired during civilian training, regarding combat psychiatric casualties. However, they rapidly became more cooperative after the division had been in combat and had experienced high rates of attrition from the improper management of psychiatric casualties.

The psychiatric consultant in the Seventh U.S. Army maintained liaison with the division surgeons for better coordination in the management of psychiatric casualties. The division surgeon maintained close contact with the regimental surgeons and, especially, with the battalion surgeons. As has been emphasized, the battalion surgeon was the key medical officer in the management of the psychiatric casualty. His attitude, morale, discipline, and screening played an important part in the control of psychiatric casualties, in their proper management, and in maximal salvage.

The Army consultant in neuropsychiatry consulted at regular intervals with the commanding officers of evacuation hospitals, and their chiefs of medical service, to coordinate the management of psychiatric casualties admitted to the hospitals. Errors occurred if this was not done because casualties were sent to evacuation hospitals with such erroneous diagnoses as injury, wound, or illness, when the disorder was primarily psychological and should have been so identified and treated. The Seventh U.S. Army required that such patients be transferred to the Army psychiatric treatment centers as soon as they were discovered.

Consistent maintenance of liaison with base hospitals serving the Seventh U.S. Army during its campaign in southern France made it possible to be aware of errors in evacuation which occurred both in the evacuation hospitals and also in the Army psychiatric treatment centers.

The Army psychiatric consultant provided for the maintenance of training and interest in his psychiatric staff. Army psychiatric treatment centers proved to be invaluable for this purpose and soon became the focus of all psychiatric services within the Army, as they had in the Fifth U.S. Army in Italy. Division psychiatrists frequently visited the centers to observe patients whom they had evacuated; conversely, psychiatrists and other medical officers from evacuation hospitals and from base hospitals to the rear visited to observe forward treatment and to maintain contact with forward psychiatrists.

The consultant in neuropsychiatry cooperated with the Army judge advocate in the management of medicolegal problems. Most important in this regard was the differentiation of soldiers who were psychiatrically ill, thus "irresponsible" and not subject to court-martial, from those in whom

no psychiatric disorder of sufficient severity was found to exist when the offense was committed and who, therefore, should be held for court-martial.

By establishing adequate policies for such forensic psychiatric examinations, it was possible to effect a productive relationship with the Judge Advocate Department. It was advantageous to examine these soldiers as soon as possible after the commission of an offense. If this was not done, symptoms and the mental state might change or subside, making the evaluation much more difficult. An attempt was made to consider the mental state of the soldier when he committed the offense and, from the data obtained at the time of examination, to draw conclusions as to his responsibility. During World War II, medical officers often complained that they found this duty onerous because their examination and decision as to whether or not the soldier was mentally competent made them feel that they were responsible for the soldier's fate.[25]

STATISTICAL STUDIES

Table 41 shows the disposition of neuropsychiatric cases by diagnosis.

Like Fifth U.S. Army, the Seventh U.S. Army required that soldiers in whom a diagnosis of constitutional psychopathic state was established be

TABLE 41.—*Disposition of 4,372 neuropsychiatric cases in Seventh U.S. Army psychiatric treatment centers, August–December 1944, by diagnosis*

Diagnosis	Total (number)	Evacuated out of Army (number)	Returned to duty	
			Number	Percent
Psychoneuroses:				
Anxiety state	3,575	2,984	591	16.5
Anxiety hysteria	20	13	7	35.0
Conversion hysteria	73	50	23	31.5
Reactive depression	43	42	1	2.3
Others	174	134	40	23.0
Psychosis	62	61	1	1.6
Constitutional psychopathic state	39	16	23	59.0
Mental deficiency	41	34	7	17.1
Other psychiatric disorder (includes "no disease")	204	19	185	90.7
Cerebral concussion	43	20	23	53.5
Organic neurologic	98	51	47	48.0
Total	4,372	3,424	948	21.7

Source: Annual Report, Surgeon, Seventh U.S. Army, 1944, p. 59.

[25] It is important to clarify this issue. The medical officer who gives a psychiatric opinion in such a case merely adds another piece of evidence. He is neither a judge nor a member of a court trying the soldier. He is only providing medical evidence to add to that available when the court hears the full case. The final judgment as to responsibility or irresponsibility, and, therefore, guilt or innocence, is made by the court, which hears and only assesses the medical officer's opinion.—A. O. L.

returned to their unit for administrative reclassification. Such a policy was preferable to board proceedings in hospitals. In this way, responsibility for action was placed in the soldier's unit where data necessary to accomplish administrative discharge were much more readily available.

The category "other psychiatric disorders" included cases in whom no psychiatric disorder was demonstrable. Soldiers were so diagnosed who demonstrated evidence of poor motivation or primary unwillingness to serve in combat. The high percentage of return to duty in this category was due to the absence of serious psychiatric disease.[26]

Table 42 gives the results of a study of a group of recurrent psychiatric casualties, many from "old" divisions, who suffered residuals of previous emotional breakdown incurred during the Italian campaign. A large percentage of these patients were readmitted within 10 days following their return to duty; either they had not recovered sufficiently or their emotional disintegration was too severe for continued effective combat duty. Also included were patients who were not considered ill, but became casualties because of lack of motivation. This category constituted most of the 56 men who were returned to duty a second time. Interestingly, more than 30 percent of the recurrent cases had remained in combat for more than 30 days before again being evacuated.

In table 43 are the consolidated figures for each 2-week period from 15 August through 31 December 1944. Under the heading "Division" are listed the number of duty returns and evacuations from division clearing

TABLE 42.—*Study of 335* [1] *psychiatric cases recurrent after return to duty, Seventh U.S. Army, 21 August–31 December 1944*

Days on combat duty before recurrence	Recurrent cases	
	Number	Percent
0 to 10	157	46.9
11 to 30	75	22.4
31 to 60	23	6.8
61 to 90	9	2.7
91 to 120	19	5.7
121 to 180	23	6.8
181 to 240	20	6.0
241 to 360 or longer	9	2.7
Total	[2] 335	100.0
Total over 30 days	103	30.7

[1] This is 27.8 percent of the 1,204 cases returned to duty from Army centers during this period.
[2] Of this number, 56, or 16.7 percent, were returned to duty a second time.

Source: Annual Report, Surgeon, Seventh U.S. Army, 1944, p. 60.

[26] These cases are the responsibility of command and do not belong in medical evacuation channels. If necessary, they should be dealt with by legal and administrative methods.—A. O. L.

TABLE 43.—*Disposition of psychiatric cases from division clearing stations and Army hospitals, Seventh U.S. Army, 15 August–31 December 1944*

Period	Cases from division clearing stations				Cases from Army hospitals			
	Total (number)	Transferred to Army (number)	Returned to duty within division		Total (number)	Transferred out of Army (number)	Returned to duty from hospital	
			Number	Percent			Number	Percent
15–31 August	113	57	56	49.6	66	47	19	28.8
1–15 September	187	117	70	37.4	172	154	18	10.5
16–30 September	580	445	135	23.3	502	443	59	11.8
1–15 October	793	604	189	23.8	962	758	204	21.2
16–31 October	602	472	130	21.6	745	600	145	19.5
1–15 November	546	419	127	23.3	516	387	129	25.0
16–30 November	595	236	359	60.3	673	520	153	22.7
1–15 December	950	467	483	50.8	563	368	195	34.6
16–31 December	726	307	419	57.7	887	606	281	31.7
Total	5,092	3,124	1,968	38.6	5,086	3,883	1,203	23.7

Source: Annual Report, Surgeon, Seventh U.S. Army, 1944, p. 61.

stations, whereas under the heading "Army" are listed the dispositions from Army hospitals, including both the psychiatric treatment centers and the evacuation and convalescent hospitals. Consolidating the two categories, 3,171 cases were returned to full duty from all installations, while 3,883 were evacuated out of the Army. The combined rate of salvage for full combat duty achieved was 31.2 percent of the total.

A further study of the disposition of psychiatric casualties for 1 January–31 March 1945 is shown in table 44. This table lists the number of casualties returned to duty from divisions and the Army, the total number evacuated out of the Army, the total cases, and, finally, the percent of returns to duty from both the Army and divisions. There are seven categories:

1. Two armored divisions.
2. The 42d, 63d, and 70th Infantry Divisions, with 3 months of combat exposure.
3. The 100th and 103d Infantry Divisions, with 4½ months of combat exposure.
4. The 44th Infantry Division, with 5½ months of combat exposure.
5. The 79th Infantry Division, with 8½ months of combat exposure, attached to the Seventh U.S. Army only from 1 January through 28 February 1945.
6. The 3d, 36th, and 45th Infantry Division, with 1 full year or more of combat exposure in Africa, Sicily, and Italy, and the original assault on the beaches of southern France with the Seventh U.S. Army.
7. The total for the 12 divisions.

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TABLE 44.—*Disposition of psychiatric casualties, Seventh U.S. Army, 1 January–31 March 1945*

Division	Total cases (number)	Evacuated out of the Army (number)	Returned to duty			
			From division (number)	From the Army (number)	Total	
					Number	Percent
12th Armored	377	53	194	130	324	85.9
14th Armored	142	22	109	11	120	84.5
42d Infantry	180	31	123	26	149	82.8
63d Infantry	264	55	136	73	209	79.2
70th Infantry	374	96	185	93	278	74.3
100th Infantry	298	64	202	32	234	78.5
103d Infantry	417	48	305	64	369	88.5
44th Infantry	316	94	186	36	222	70.3
79th Infantry	190	83	57	50	107	56.3
3d Infantry	273	175	43	55	98	35.9
36th Infantry	409	274	68	67	135	33.0
45th Infantry	512	328	140	44	184	35.9
Total	3,752	1,323	1,748	681	2,429	64.7

Of 1,323 soldiers lost to the Army by evacuation to base hospitals, 777, or 59 percent, came from the three "old" divisions—the 3d, the 36th, and the 45th—with the longest total combat exposure. As shown previously, more than half of the cases evacuated out of these three divisions for psychiatric reasons had been exposed to more than 8 months of combat.

The figures show the importance of careful screening within the division in retaining psychiatric cases for combat duty; also that realistic policies in freshly committed divisions attained salvage rates for combat duty of 74 to 88 percent. Of course, many cases represented poorly motivated soldiers, or soldiers newly exposed to battle stress, who developed normal battle reactions and were erroneously evacuated by inexperienced battalion surgeons.

The figures clearly indicate that as combat exposure increased so did the efficiency of division medical officers and division psychiatrists. Eventually, the result of this process was the evacuation of only "genuine" or severe cases of psychiatric disability and, finally, a progressively smaller rate of salvage for full duty from both division and Army medical installations.

The table shows that the progressive decline of salvage for full duty was in almost direct proportion to the total combat exposure of the division. The rate of occurrence of psychiatric breakdown and salvage shown in the three divisions with the longest combat exposure probably represented the nonreversible loss to be expected under the prevailing circumstances of almost continuous commitment in combat over prolonged time periods.

Of the 2,429 soldiers reclaimed for full combat duty, 1,748 (72 percent) were salvaged within the division. This reflected the success of the policy of holding and treating these casualties as far forward as possible.

The work performance of 310 patients evacuated to the rear from Seventh U.S. Army neuropsychiatric centers is given in table 45.

TABLE 45.—*Work performance at new assignment of patients evacuated to the rear, from Seventh U.S. Army neuropsychiatric centers*

Performance	Patients	
	Number	Percent
Satisfactory or better:		
Superior	11	3.5
Excellent	129	41.6
Very satisfactory	65	21.0
Satisfactory	83	26.8
Total satisfactory or better	288	92.9
Unsatisfactory	15	4.8
Performance not rated	7	2.3
Total	22	7.1
Grand total	310	100.0

CRITIQUE

At the end of his tour of duty in the Seventh U.S. Army on 7 July 1945, the author submitted a final summary and critique of that Army's psychiatric services for the historical report.[27] A summary of some of this material follows.

Neuropsychiatric Services Within Division

Role of command.—The vital importance of continued interest on the part of command, the exercise of its responsibility with reference to the whole psychiatric problem in a division, cannot be overemphasized. Command pressure must constantly be exercised to maintain unit morale, by insisting on adequate officer leadership at all echelons and by exercising supervision and control over the evacuation of psychiatric casualties from combat.

A case in point is the 3d Infantry Division which achieved the lowest psychiatric casualty rate of any division in the Seventh U.S. Army despite experiencing one of the longest periods of commitment to combat of any

[27] Semiannual Report, Surgeon, Seventh U.S. Army, 1 January–30 June 1945.

U.S. infantry division in World War II, and thus suffering the largest number of battle casualties. This result is believed due to the excellent unit morale which was consistently maintained in this division and from command's exercise of close control over the evacuation of psychiatric casualties from the battlefield. This division demonstrated that it was feasible to place the responsibility for such control on medically untrained line officers. In the 3d Division, all nonwounded casualties were required to obtain permission from line officers before leaving combat.

Command must recognize its function in the management of inadequate officer personnel. Proper management of such personnel is a paramount requirement for good combat efficiency, for high morale, and, consequently, for low psychiatric case rates. In the Seventh U.S. Army, each division had to learn this lesson through the bitter experience of combat. Repeatedly, commanders attempted to use medical rather than administrative channels for disposition of inadequate officers. No matter what motivated such attempts, the Seventh U.S. Army consistently maintained the policy that officers who demonstrate inadequacy because of premilitary neuroticism, or who break down after mild combat stress of short duration, are not capable of holding a commission. Such cases do not belong in medical channels and should be resolved administratively by reclassification.

Experienced divisions seldom endeavored to evacuate inadequate officer personnel to medical installations. Such officers were evaluated by the division psychiatrist and usually were given the option of resigning their commissions or of appearing before administrative reclassification boards.

Officer personnel who developed psychiatric disability after prolonged combat exposure were given the same consideration as any other casualty, with medical evacuation when indicated.

Role of division psychiatrist.—The division psychiatrist, ideally, should be a medical officer with adequate psychiatric training and experience. He should have served with the division before combat to become familiar with its administrative and military medical requirements. He must adapt his psychiatric skills in accordance with realistic demands of the military situation, especially in combat, with particular reference to the conservation of manpower.

It is vital that the division psychiatrist establish efficient liaison with all division elements, especially with commanders. This requires that he convince nonmedical line officers as to the wisdom of psychiatric policies and procedures. His best arguments are a realistic outlook and tangible results during combat, in conserving fighting strength. Advisable is personal contact with the commanding general and the chief of staff of the division. He should cooperate with the division judge advocate on disciplinary matters with medicolegal implications and with the Personnel Section to effect efficient assignment of individual soldiers and, in selected cases, intradivision reassignment. Through command channels, he should

remain in constant contact with the line commanders of lower echelons.

The division psychiatrist must maintain a constant interest in the performance of all division medical officers from the battalion aid station surgeon through the clearing station personnel. These latter officers, on whom the final success of the neuropsychiatric program depends, and who are usually known individually by the average soldier, can exert considerable influence in maintaining proper attitudes.

Repeatedly, medical officers of inexperienced divisions were prone to err in evacuating men too quickly, by allowing themselves to be prejudiced by sentimental considerations. This was particularly true of battalion surgeons.

Ideally, division psychiatrists should set up a "medical screen" so fine that most cases referred to them are sufficiently mentally ill to require evacuation from the division, and rarely capable of return to duty. However, under combat conditions, this ideal cannot be achieved.

Psychiatrists in the Seventh U.S. Army divisions pointed out that very high returns to duty of psychiatric casualties from division or Army clearing stations usually indicated poor forward screening, and were not necessarily the result of skilled psychiatry. Evidence for this point was by the duty returns from "new" and "old" divisions. In the "old," duty returns were between 30 and 35 percent of the total; in the "new," as high as 88 percent. With increasing combat experience and improved screening efficiency by medical personnel within the divisions, salvage rates fell as the length of exposure to combat increased.

Seventh U.S. Army experience demonstrated that, for efficient operation, the division psychiatrist needs a certain number of tents, cots, blankets, mess gear, and personnel—a minimum of at least one clerk and two wardmen. Personal transportation is also essential as his functions require much travel within a large area.

Most division psychiatrists in the Seventh U.S. Army worked in the division clearing station where they maintained a small treatment tent for about 20 patients. Usually, they were able to find a clerk and some wardmen to assist them. Medical Chest No. 4 was provided through Army medical supply channels to make available a typewriter and other clerical supplies. This plan worked very well in the 3d, 36th, and 45th Infantry Divisions where command was aware of the saving in manpower made possible by the psychiatrist's efforts. The newer divisions, fresh from the United States, often had friction between psychiatrists and clearing station commanders. Usually, the clearing station commanders, still operating under the principles taught them at the Medical Field Service School, Carlisle Barracks, Pa., were too impressed with the need for "clearing" and, initially, sometimes refused to assign sufficient beds to the division psychiatrist, or to allow him to hold patients for a sufficient length of time.

Many divisions with long combat experience established three sets of

holding and treatment wards in the clearing stations: one for minor surgical cases, one for mild medical cases, and one for psychiatric casualties. In this way, a large number of minor casualties were salvaged within division without evacuation, thereby greatly reducing the need for replacements.

Personnel officers in the Seventh U.S. Army sometimes argued that holding minor casualties produced too high a noneffective rate. Under this system, however, patients were usually not held for more than 7 days before return to duty. One division calculated that at least 2 weeks were required for new replacements to reach the combat unit after a man was lost. Also, line officers estimated that another 2 weeks were needed to bring the replacement to the combat efficiency of the man he had replaced. At any given time, therefore, the noneffective rate does not accurately reflect the true picture of manpower saving which can be achieved by holding minor casualties in clearing stations. Furthermore, the very important morale factor involved in the salvage of the maximum number of experienced combat soldiers, as opposed to a policy of rapid evacuation of casualties and their replacement by unseasoned troops, cannot be estimated.

In some divisions, the lack of cooperation by clearing station commanders became so troublesome that the division psychiatrist requested, and usually received, permission to establish a psychiatric treatment center separate from the clearing station. Although this method unburdened the clearing station and gave the psychiatrist help and equipment, it had the serious disadvantage of removing him from the one location where he could serve most effectively in the proper screening of casualties; also, it made him unavailable for consultation with the clearing station medical officers. It is therefore believed that the psychiatric service within a division operates best in conjunction with the clearing station.

Errors by division psychiatrists.—The most frequent errors of operation by division psychiatrists were:

1. Failure to establish liaison with command, which resulted in misunderstanding and lack of cooperation by command on psychiatric matters.

2. Failure to indoctrinate battalion surgeons properly in the correct realistic policies of screening psychiatric casualties.

3. Failure to correct inefficient practices of medical officers relative to combat psychiatric cases.

4. Unnecessary evacuation from the division of psychosomatic cases with organic diagnosis.

Treatment within division.—Experience led to the conclusion that protracted treatment, prolonged psychotherapy, and elaborate installations were unnecessary at division level. Division psychiatrists reported that symptoms increased if patients were held at clearing stations for more than 1 or 2 days. It became evident that symptoms must be regarded largely as normal reactions to combat, with emphasis on rapid return to duty after

short rest. Unless case rates are very low, the policy should be to concentrate on retaining the milder and more favorable cases, and evacuating the more severe cases for treatment at the Army level.

Reassignment within division.—In some instances, soldiers who had had psychiatric breakdown in combat were given noncombat assignments within the division. Particularly in the 103d Infantry Division, good results were achieved by this procedure, and many good men with special training were retained usefully in the division. This corroborated the belief that such soldiers often serve satisfactorily in any assignment short of combat. However, the procedure must be used carefully lest the impression is created that it is easy to be reassigned in a safe job as a result of minor psychiatric reactions in combat.

Indoctrination of new replacements.—In the Italian campaign during 1943 and 1944, poorly trained or misassigned soldiers frequently were found committed to combat. During the period, the policy was to send replacements to combat as individuals. Under such conditions, many of them rapidly became psychiatric casualties. Psychiatrists believed that replacements should be sent to combat as units of 10 or more, or in squads, trained and shipped overseas together to utilize fully the positive morale factor and the mutual protective support of the group. They also believed that it was highly deleterious to individual and group morale to regard replacements as so many numbers, bodies, or "sticks." It is inconsistent to emphasize high unit morale and then to pursue a policy of replacement with the view that the replacement was simply an "expendable spare part." Usually, his lot had already been made difficult by being a casual unassigned soldier about whom no one seemed to care in the unhealthy atmosphere of a replacement depot. How replacements are made is vital to unit morale.

The 100th Infantry Division achieved a successful policy regarding replacements. All replacements arriving at the division were given a short orientation talk by a combat officer. This stressed the history of the division, its standards, achievements, decorations, and commendations. A realistic survey was also given as to what might be expected under combat conditions. Indoctrination followed on procedures designed to increase efficiency and personal security in combat. The soldier moved slowly toward his eventual assignment, first to regiment, then to battalion, and finally to his company. He was then assigned to an experienced "buddy." The division followed a somewhat similar system of slowly reacclimating soldiers who had returned to duty after hospitalization. Unfortunately, it was not possible to assess the effect of this procedure on the psychiatric casualty rate among the replacements in this division. It appeared to be an intelligent manner of dealing with the problem.

Other special aspects.—In the 100th Infantry Division, the psychiatrist operated with a "medical board," an informal organization consisting of

the psychiatrist and several clearing station medical officers. The board evaluated obscure cases, especially those with psychosomatic symptoms, a group which always caused difficulty. The psychiatrist found that the patient more readily accepted the true diagnosis when opinions of surgical and medical officers were enlisted. X-ray studies, if necessary, were accomplished in the field hospital on an outpatient basis, and provided another method to reduce the loss of manpower. Previously, many such individuals were evacuated to army or base installations for "study." The 100th Infantry Division dealt with the disorder properly by psychiatric means shortly after onset and deprived the patient of the rationale of an organic cause for his symptoms.[28]

Special problems in armored divisions.—Armored divisions were fortunate in that their commitments to combat were short, with frequent rest periods, but their special functions created other problems. The short exposure to combat usually resulted in low rates of psychiatric casualties with a high rate of salvage for duty. However, once the front became fluid, rapid movement made their problem much more difficult.

When such rapid movement began, armored divisions usually carried on for days or weeks without rest since their chief aim was to continue to advance for as long and as far as possible. In the later phases of the Seventh U.S. Army campaign in Germany, armored combat treatment stations found it almost impossible to keep up with the advance and very difficult to hold patients because of rapid and frequent moves forward. Consequently, many psychiatric casualties from these armored divisions were sent directly to Army centers without previous screening. This raised the question as to the proper place of operation for the psychiatrist of an armored division.

The armored divisions in the Seventh U.S. Army solved the problem in different ways. Some used the treatment station of the reserve combat unit command—a plan which was workable only if that command was not committed to combat. Others established a treatment station for psychiatric casualties at the headquarters of the division medical battalion. This had the disadvantage of placing the treatment station far behind the lines. Another possibility was to establish the treatment station in conjunction with the Army treatment center during periods of rapid advance. This necessitated attaching the armored division psychiatrist, with the necessary enlisted personnel for clerking and ward care, to the appropriate Army treatment center behind his division. The disadvantage was that it forced the division psychiatrist to operate far behind his unit, but this method maintained useful centralization of the divisional care of psychiatric casualties. It was not possible to try out this modification before the end of the campaign in Germany, and no conclusions could be drawn as to its feasibility.

[28] A similar "Board" procedure was developed in the 85th Infantry Division (pp. 65–66).—A. J. G.

Neuropsychiatric Services Within the Army

The question of the proper type of medical installation for the care of psychiatric casualties in the Army was not settled in the Seventh U.S. Army. Separate clearing companies were used. When the entire company of two platoons was used, additional enlisted personnel were made available to care for a caseload of 250 patients. One center was assigned to serve each corps. The change of units, or the removal of parts of it for other work, interfered with the efficiency of the professional care of the psychiatric treatment center. Such units should, therefore, be designated before the campaign, and should be properly staffed and trained for this special mission.

There might be advantages to using three platoons of a field hospital for this function, with each platoon serving as a treatment center for a corps. In such a case, field hospitals, provided with a definite table of organization and equipment for this special purpose, should be designated as exhaustion treatment centers; they need no additional physical equipment, but the professional officer personnel should be trained psychiatrists. At least 85 enlisted men per platoon are required for a caseload of 250 patients. Nurses are not necessary: experience demonstrated that not only are they not needed, but by augmenting the "hospital atmosphere," they might actually hamper efficient care of psychiatric cases at this level.

Some difficulty was experienced in staffing the psychiatric treatment centers; it was necessary to use nonpsychiatrically trained medical officers, supervised by a few trained psychiatric medical officers.

When the supervising psychiatrist was not highly capable, forceful, and a good teacher, the results were not satisfactory. Ideally, such centers should be staffed exclusively with psychiatrically trained medical officers. Unfortunately, the medical officers assigned to clearing company platoons are often young, with little experience in any medical specialty.

Division psychiatrists in the Seventh U.S. Army had usually been drawn from a group of extremely well-trained and, often, Board-accredited psychiatrists. It was inconsistent to support such men with novices in the psychiatric field. Proper staffing of Army psychiatric installations is essential for maximal salvage of manpower for combat and for the most efficient rehabilitation for limited service of those unfit for further combat. The theater psychiatric consultant could exercise useful control over the quality of the personnel assigned to an army because he had a large number of trained medical officers under his direct authority. Close cooperation between base and army interchange of personnel, where necessary, helped alleviate the shortages of trained medical officers in the Army. Such interchange also had the advantage of improving the total theater psychiatric service by giving base psychiatric officers experience in the observation, diagnosis, and treatment of psychiatric patients shortly after onset of their disorders.

Another possible solution for the problem of staffing the psychiatric treatment centers is suggested by the auxiliary surgical teams. The organization and equipment of such units could be expanded to include not only surgical and surgical specialty teams, but medical and psychiatric teams as well. A pool of such special officers, under the control of the theater surgeon, would be available for duty in any echelon where they are needed. This would make possible the rapid shift of trained personnel as required. In such a system, the psychiatric treatment centers could be staffed with skeleton operating staffs of general-duty medical officers to which especially trained personnel are added when necessary. It would also provide for suitable TO assignments for psychiatrists in the Army. Many psychiatrists who served in the Seventh and in the Fifth U.S. Armies gave months of superior service on temporary duty and detached service status.

After the end of the campaign in the Seventh U.S. Army, the psychiatrists concluded that rehabilitation of psychiatric casualties from combat could be hastened if Army installations, including the psychiatric centers, were granted authority to reclassify such patients. At that time, this authority was reserved for base hospitals, but the psychiatrists believed that this wasted time and duplicated work insofar as psychiatric casualties were concerned.

Many medical cases and most psychiatric cases could easily be reclassified within the Army. In this way, psychiatric casualties would be reassigned to useful noncombat duties much more rapidly than had been the case. The psychiatrists demonstrated repeatedly that the best results occurred in psychiatric casualties after removal of symptoms at the earliest possible time, and after rapid reclassification and reassignment to some regular unit. Except for tradition, there seems to be no valid reason why reclassification powers should not be granted to Army medical installations.

Reassignment of psychiatric casualties within the Army was very difficult. When it was attempted in the Seventh U.S. Army, only a small number could be used because of the limited position vacancies and the low attrition rate within the Army service units, but the results achieved with the reassigned cases indicated that the principle was sound and workable. In one instance, 14 noncommissioned officers who became psychiatric casualties after long combat service (250 to 300 actual combat days) were sent on a patient status to a convalescent hospital. The hospital urgently needed them to assist in rehabilitating and training battle casualties who were convalescing at the installation. The hospital's noncommissioned officers, without combat experience, had great difficulty in managing the combat soldier patients' discipline and morale. Also, its table of organization was inadequate in providing training personnel. Although they were on a patient status, the combat psychiatric patients mentioned lived and worked with the regular hospital staff in the usual way. Their patient status was not

known to the enlisted staff or to the patients whose rehabilitation they supervised.

The end of the campaign made further employment of these 14 men unnecessary. They had served for 3 months at the convalescent hospital and were then returned to the Army psychiatric center for eventual evacuation and reclassification. Upon inquiry as to their efficiency, the commanding officer of the convalescent hospital wrote:

> * * * these men performed their duties with enthusiasm and efficiency, and frequently offered acceptable constructive suggestions. They were trained as hospital personnel rather than as patients and performed duties in the convalescent companies, as guards, clerks, and supply sergeants, in addition to their other duties. On the whole, they benefited by the physical exercise associated with their work, as well as by the emotional relief of being able to do their patriotic part in the war. The success of the reconditioning and training program as carried on during this period was possible only through the aid of these neuropsychiatric casualties, and both the patients and the hospital personnel benefited by their presence.

Followup Studies

The Army psychiatric center made a followup psychiatric survey on all cases after they were readmitted. Their report stated:

> All * * * were soldiers who had developed incapacitating anxiety reactions after severe and repeated battle stress. Most * * * were sergeants * * * selected as having been stable in civilian life, constructive in their attitudes, and anxious to cooperate in the program. All were rated improved by the program. None were unimproved or worse * * *. The attitude of all * * * was uniformly excellent * * *. All were cooperative, respectful, alert, neat, and soldierly in bearing. None of them thought of himself in terms of chronic illness or incapacity. All of them made mention of the remarkable manner in which their self-confidence had been restored. Their demeanor tended to be relaxed and they smiled easily and displayed a natural humor. The pulse rate was uniformly low. Not one now felt any qualms about undertaking noncombat work or social responsibilities in the future. None had physical complaints or had frequented sick call.[29]

It is important to reemphasize that every effort should be made to maintain rigid criteria for disposition in Army psychiatric centers. Soldiers who are thought to be fit for combat duty must be returned there, regardless of their wishes or complaints. Cases which fall under the provisions of AR (Army Regulations) 615–368 or 615–369 must also be returned to duty for administrative disposition by their own units.

Every effort should be made to remove symptoms as completely as possible in those cases which need evacuation to the rear. In the Seventh U.S. Army, this was accomplished by reassurance and psychotherapy; narcohypnosis by means of intravenous Pentothal Sodium (thiopental sodium) was also used in 15 to 20 percent of the patients, primarily those with periods of amnesia, with hysterical symptom residues, with tics, with

[29] These statements amply characterize the success of this particular type of rehabilitative operation with a certain category of combat psychiatric casualties.—A. O. L.

repetitive movements, and with mute states or stuporous reactions. Strong-arm methods are unnecessary and have no place in any psychiatric program. A policy of realism does not preclude kindness, sympathy, and individual consideration, even in Army hospitals close to the combat zone.

A series of followup studies was done on a group of 336 cases returned to combat duty from the Army centers, and on a group of 500 cases who were evacuated to the rear from these centers. The combat-cases followup was done approximately 2 months after these patients had been returned to duty, with the following results:

Time and performance in unit	*Number of cases*	*Percent*
Still in unit	106	31.5
No longer in unit	230	68.5
Total	336	100.0
Performance good or fair of those still in unit	89	26.5
Stayed more than 30 days before leaving	66	19.6
Total who performed useful service	155	46.1

A preliminary spot sample of the followup studies of the 500 cases evacuated to the rear showed that the performance of these soldiers after reclassification and reassignment, according to letters from their commanding officers, was excellent in 69.1 percent, good in 24.7 percent, fair in 3.1 percent, and poor in 3.1 percent.

The tabulation which follows lists the times spent in various installations before reassignment, as calculated from the spot sample.

Time spent in Army	*Percent*
0 to 5 days	38.0
6 to 10 days	54.0
More than 10 days	4.0
Unknown	4.0
Total	100.0
Time spent in base	
1 to 2 weeks	56.0
2 to 3 weeks	20.0
More than 3 weeks	24.0
Total	100.0
Time spent in replacement depots	
Less than 1 month	14.0
1 to 2 months	22.0
2 to 3 months	12.0
More than 3 months	18.0
Unassigned	26.0
Unknown	8.0
Total	100.0

These results indicate the efficiency of the methods followed by Seventh U.S. Army psychiatric services during World War II, and those prevalent in the base hospitals behind the Army. The personnel in the psychiatric service of the Seventh U.S. Army were fortunate in having worked for many months in Italy and in France with the same base hospitals behind them. All of them, working with these casualties, agreed that certain fundamental principles—active work therapy in the hospital, maximal removal of symptoms in the shortest possible time and with the simplest methods available, and prompt reassignment to regular noncombat duty—were essential for a workable policy of rehabilitation.

As pointed out already, there were certain defects in the Seventh U.S. Army psychiatric services. The tabulated figures of the length of time spent by psychiatric patients in reclassification and reassignment demonstrate that far too much time was wasted. This applied to base hospitals, even though they attempted to keep the duration of hospitalization to a minimum, and to replacement depots. It was surprising that the performance of the reassigned patients had been as good as reported, for 52 percent in the preliminary survey had spent more than 1 month idle in replacement centers. Probably much of this waste of time could be eliminated; first, by allowing Army medical installations to reclassify such cases, thereby obviating the need for base hospitalization, and, second, by improving the methods and facilities for reassignment of such casualties in the replacement centers.

Essential data and statistics.—Tables 46-51 present essential data and statistics obtained from bimonthly division psychiatric reports and from bimonthly reports of psychiatric casualties in Seventh U.S. Army hospitals. The increase in duty returns in the second period reflected the influx of new and inexperienced divisions into the Army. These divisions had poor forward screening rather than any sudden increase in the efficacy of psychiatric methods, at either division or the Army level. Note that psychiatric services salvaged more than 7,500 soldiers for combat during this period, more than two full infantry regiments.

Table 46 is self-explanatory.

Table 47 gives the dispositions of psychiatric casualties from Seventh U.S. Army hospitals by diagnostic categories and in terms of combat- or non-combat-incurred cases. Anxiety state was the most frequently encountered psychiatric disorder. Included in the category "Other neuropsychiatric disease" are those cases believed to be unwilling to serve or poorly motivated, and occasional malingerers. The makeup of this category explains the reason for the very high duty returns of the group.

On the whole, returns to noncombat duty were much higher than returns to combat. This followed the consistent policy of the Seventh U.S. Army that men who served in noncombat assignments remain on duty even in the presence of neurotic symptoms, if these were not inca-

TABLE 46.—*Disposition of psychiatric casualties in Seventh U.S. Army divisions and Army installations, 15 August 1944–24 May 1945*

Period	Divisions				Army				Consolidated			
	Total (number)	Transferred out of division (number)	Returned to duty		Total (number)	Evacuated out of the Army (number)	Returned to duty		Total (number)	Evacuated out of the Army (number)	Returned to duty	
			Number	Percent			Number	Percent			Number	Percent
15 August–31 December 1944	5,244	3,200	2,044	39.0	5,092	3,888	1,204	23.6	7,136	3,888	3,248	45.5
1 January–24 May 1945	4,501	2,133	2,368	52.6	4,445	2,548	1,897	42.7	6,813	2,548	4,265	62.6
Total	9,745	5,333	4,412	45.3	9,537	6,436	3,101	32.5	13,949	6,436	7,513	53.9

Source: Semiannual Report, Surgeon, Seventh U.S. Army, 1 Jan.–30 June 1945, p. 13.

TABLE 47.—*Breakdown of disposition of psychiatric casualties, combat and noncombat incurred, Seventh U.S. Army hospitals, 1 January–24 May 1945, by diagnosis*

Diagnosis	Combat-incurred cases				Noncombat-incurred cases			
	Total (number)	Evacuated (number)	Returned to duty		Total (number)	Evacuated (number)	Returned to duty	
			Number	Percent			Number	Percent
Neuroses:								
Anxiety state	2,634	1,741	893	33.9	279	130	149	53.4
Anxiety hysteria	64	36	28	43.8	18	4	14	77.8
Hysteria	96	60	36	37.5	23	9	14	60.9
Reactive depression	100	86	14	14.0	15	9	6	40.0
Posttraumatic	18	9	9	50.0	1	1	0	-------
Other neuroses	80	48	32	40.0	42	25	17	40.3
Total neuroses	2,992	1,980	1,012	33.8	378	178	200	52.9
Psychoses:								
Dementia praecox	38	38	0	-------	35	35	0	-------
Manic depressive	8	8	0	-------	2	2	0	-------
Other psychoses	46	44	2	4.3	22	21	1	4.5
Total psychoses	92	90	2	2.2	59	58	1	1.7
Other disorders:								
Constitutional psychopathic state	104	48	56	53.8	87	33	54	62.1
Mental defective	26	17	9	34.6	19	14	5	26.3
Other neuropsychiatric disease [1]	241	8	233	96.7	91	14	77	84.6
Concussion	198	41	157	79.3	18	3	15	83.3
Epilepsy	15	14	1	6.7	11	11	0	-------
Neurologic and other organic diseases	109	58	51	46.8	57	30	27	47.4
Total other disorders	693	186	507	73.2	283	105	178	62.9
Grand total	3,777	2,256	1,521	40.5	720	341	379	52.6

[1] Includes cases with diagnosis "no disease."

Source: Semiannual Report, Surgeon, Seventh U.S. Army, 1 Jan.–30 June 1945, p. 14.

pacitating. The aim, to "close the evacuation door" to those cases, was effective in salvaging manpower from this group. Many cases from the noncombat group had been chronic visitors to sick call, and were sent to the Army psychiatric treatment centers by the unit surgeons either for evaluation or, often, simply to get rid of them. The unit surgeons can accomplish much with this type of patient if the necessary time is taken to go through a reasonable examination and to reassure him. Like the battalion surgeon in combat, the unit surgeon in the noncombat unit can

exert the greatest influence in this respect. More indoctrination of the noncombat unit surgeons would prove to be advantageous in reducing this type of manpower loss.

Table 48 gives comparative rates per 1,000 per annum of the wounded in action and psychiatric casualties for Seventh U.S. Army divisions between 1 January and 15 May 1945.

Table 49 gives the incidence of medicolegal consultations by the division psychiatrists in the Seventh U.S. Army for each division from 1 January to 15 May 1945. In almost every instance, a very high percentage of cases examined were found to be legally responsible. Usually, the offenses in question involved violations of AW (Articles of War) 58 or 75 (absent without leave from battle). Psychiatrists consistently maintained the policy that only those soldiers should be exonerated who were actually mentally irresponsible when committing the offense, because of the presence of frank psychosis, or of severe degrees of neurosis. Line officers were required to forward to the psychiatrist the charge sheet and information as to the circumstances surrounding the alleged offense, as well as information from reliable witnesses as to the accused's behavior in the unit, both at the time of and before the alleged offense. Without such information, consultation was refused.

Table 50, listing the number of self-inflicted wounds for Seventh U.S. Army divisions for 1 January–15 May 1945, indicates a low incidence of this phenomenon.

In a group of Army evacuation hospitals, a survey was also made of wounds self-inflicted by Seventh U.S. Army soldiers from 15 August through 18 November 1944. This survey showed that of 366 cases reported by the hospitals, only 9 (2.5 percent) were held to be not in line of duty, and 128 (35 percent) were in line of duty. In 229 (62.5 percent), line-of-duty status had not been determined, or was questionable. Of the cases thought to have been in line of duty, 80 (62.5 percent) were so determined without a board investigation, while 48 (37.5 percent) were determined with a board investigation. Obviously, some better way of dealing with this troublesome problem was needed.

In table 51 are tabulated the dispositions of psychiatric casualties from division and Army installations from 1 January through 15 May 1945. Also included are the number of wounded in action for each division, the percent of psychiatric casualties to wounded in action, and, finally, the percent of psychiatric casualties evacuated out of the Army (and thereby lost to the unit) in relation to the wounded in action. As in previous tabulations of this sort, the "old" divisions, with long combat records, had the lowest salvage rates for duty. The salvage rates for duty of psychiatric casualties fell progressively with the length of time in combat. With the exception of the 36th and 45th Infantry Divisions, both with very long

TABLE 48.—*Comparative rates for the wounded in action and psychiatric casualties, Seventh U.S. Army divisions, 1 January–15 May 1945*

[Rate expressed as number of cases per annum per 1,000 average strength]

Division and type of casualty	January		February		March		April		May
	1–15	16–31	1–15	16–28	1–15	16–31	1–15	16–30	1–15
10th Armored:[1]									
Wounded in action	1	1	1	1	1	1	881	514	15
Psychiatric	1	1	1	1	1	1	325	142	4
12th Armored:									
Wounded in action	424	1,100	476	0	25	1,032	1,373	664	117
Psychiatric	105	326	131	47	21	140	199	13	29
14th Armored:									
Wounded in action	840	520	86	73	99	406	512	------	------
Psychiatric	82	109	11	18	10	38	54	------	------
3d Infantry:									
Wounded in action	346	2,197	1,045	12	395	1,726	504	680	50
Psychiatric	70	166	56	26	34	105	30	29	11
36th Infantry:									
Wounded in action	335	302	1,006	79	619	1,173	12	17	119
Psychiatric	91	99	172	56	86	229	10	17	25
42d Infantry:									
Wounded in action	------	------	0	201	299	463	757	477	46
Psychiatric	------	------	24	56	83	101	25	48	8
44th Infantry:									
Wounded in action	848	78	325	188	88	296	42	373	200
Psychiatric	161	73	48	121	94	74	31	65	21
45th Infantry:									
Wounded in action	1,253	520	87	11	190	1,479	339	928	116
Psychiatric	354	278	86	31	36	122	32	32	32
63d Infantry:									
Wounded in action	------	------	250	606	905	850	1,448	700	------
Psychiatric	------	------	72	68	101	216	229	85	------
70th Infantry:									
Wounded in action	------	------	281	2,163	832	273	------	------	------
Psychiatric	------	------	49	213	210	44	------	------	------
79th Infantry:									
Wounded in action	957	564	109	------	------	------	------	------	------
Psychiatric	133	107	39	------	------	------	------	------	------
100th Infantry:									
Wounded in action	582	125	159	73	359	153	1,067	584	2
Psychiatric	195	88	57	52	58	49	210	91	22
103d Infantry:									
Wounded in action	117	382	177	53	402	1,095	0	192	137
Psychiatric	42	146	75	61	101	250	27	69	49

[1] The 10th Armored Division was with the Third U.S. Army until April 1945.

Source: Semiannual Report, Surgeon, Seventh U.S. Army, 1 Jan.–30 June 1945, pp. 15–17.

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TABLE 49.—*Results of medicolegal consultations of division psychiatrists, Seventh U.S. Army divisions, 1 January–15 May 1945*

Division	Total consultations (number)	Decision formulated from consultations		
		Mental disease, patient not responsible (number)	No mental disease; patient responsible	
			Number	Percent
12th Armored	16	0	16	100.0
14th Armored	6	0	6	100.0
3d Infantry	261	51	210	80.5
4th Infantry	29	6	23	79.3
36th Infantry	294	133	161	54.8
42d Infantry	8	0	8	100.0
44th Infantry	79	12	67	84.8
45th Infantry	307	43	264	86.0
63d Infantry	17	1	16	94.1
70th Infantry	3	0	3	100.0
71st Infantry	5	0	5	100.0
79th Infantry	74	5	69	93.2
100th Infantry	20	0	20	100.0
103d Infantry	57	1	56	98.2
Total	1,176	252	924	78.6

Source: Semiannual Report, Surgeon, Seventh U.S. Army, 1 Jan.–30 June 1955, p. 18.

TABLE 50.—*Comparison of incidence of self-inflicted wounds to wounded in action, Seventh U.S. Army divisions, 1 January–15 May 1945*

Division	Total wounded in action (number)	Total self-inflicted wounds	
		Number	Percent
10th Armored	235	8	3.4
12th Armored	2,241	7	.3
13th Armored	8	8	100.0
14th Armored	973	0	----
3d Infantry	3,116	95	3.0
4th Infantry	659	8	1.2
36th Infantry	1,828	88	4.8
42d Infantry	1,295	15	1.2
44th Infantry	1,250	117	9.4
45th Infantry	2,332	93	4.0
63d Infantry	2,457	81	3.3
70th Infantry	1,895	86	4.5
71st Infantry	125	6	4.8
79th Infantry	1,127	0	----
100th Infantry	1,610	113	7.0
103d Infantry	1,278	68	5.3
Total	22,429	793	3.5

Source: Semiannual Report, Surgeon, Seventh U.S. Army, 1 Jan.–30 June 1955, p. 19.

TABLE 51.—*Disposition of psychiatric casualties in division and Army installations, and comparison to wounded in action, Seventh U.S. Army divisions, 1 January–15 May 1945*

Division	Total cases (number)	Evacuated out of the Army (number)	Total returned to duty		Returned to duty from—				Wounded in action (number)	Percentage to wounded in action of—	
					Division		Army			Psychiatric cases (percent)	Evacuated psychiatric cases (percent)
			Number	Percent	Number	Percent	Number	Percent			
3d Infantry	314	206	108	34	48	44	60	56	3,119	9.1	6.2
4th Infantry	58	31	27	47	15	56	12	44			
36th Infantry	459	314	145	32	74	51	71	49	1,828	20.1	14.7
42d Infantry	264	53	211	80	158	75	53	25	1,923	12.1	2.7
44th Infantry	407	123	284	70	230	81	54	19	1,250	24.6	9.0
45th Infantry	571	365	206	36	155	75	51	25	2,332	19.7	13.5
63d Infantry	543	108	435	80	260	60	175	40	[1] 1,867	22.5	5.5
70th Infantry	378	98	280	74	185	66	95	34	[2] 2,029	15.7	4.6
71st Infantry	1	1	0		0		0				
79th Infantry	190	83	107	56	57	53	50	47	[3] 1,190	13.8	6.5
86th Infantry	10	0	10	100	9	90	1	10			
100th Infantry	463	100	363	78	299	82	64	18	1,597	22.5	5.9
103d Infantry	507	54	453	89	382	84	71	16	1,278	28.4	4.1
10th Armored	220	71	149	68	31	21	118	79	609	26.5	10.4
12th Armored	590	137	453	77	265	58	188	42	2,241	20.8	5.8
14th Armored	153	24	129	84	118	91	11	9	[4] 978	13.5	2.4
20th Armored	1	0	1	100	0		1	100			
Total	5,129	1,768	3,361	66	2,286	68	1,075	32			

[1] From 1 February to 15 May 1945.
[2] From 1 February to 31 March 1945.
[3] From 1 January to 15 February 1945.
[4] From 1 January to 15 April 1945.

Source: Semiannual Report, Surgeon, Seventh U. S. Army, 1 Jan.–30 June 1945, p. 20.

combat records and high losses, the percent of psychiatric casualties lost to the Army ran well below 10 percent of the wounded in action.

This table gives an excellent overall survey of the psychiatric services performed in an army. The relative efficiency of the various division psychiatrists can be ascertained by comparing the number returned to duty from divisions with those returned from Army installations. In general, one may conclude that if a high percentage of duty returns for a given number of casualties from a certain division occurred from the Army center, then screening in the division from which these casualties came was inadequate. While the total number of cases which occurred in some of the newer divisions was relatively high, their salvage rates were equally high. This indicated less effective screening and the occurrence of milder casualties.

The overall importance of adequate psychiatric services in the Army is shown in table 46. In divisions, 9,745 cases were reported, of which 4,412 (45.3 percent) were salvaged for duty within the division clearing station. In the Army centers, 9,537 cases were seen, of which 3,101 (32.5 percent) were returned to duty. Finally, consolidating these figures, 7,513 cases were returned for duty from both divisions and Army installations, whereas 6,436 had to be evacuated out of the Army. In the Seventh U.S. Army then, from 15 August 1944 through 24 May 1945, which was the approximate duration of this campaign from the invasion of southern France until the end of the war in Europe, 13,949 psychiatric casualties were reported in the divisions and in Army installations. Of these, 53.9 percent were returned to duty.

These overall results were achieved with medical personnel who had to be trained while actually operating and treating combat-induced casualties.

The results vindicated the policies of (1) treating and holding psychiatric casualties as far forward as possible, (2) careful, rigid screening to prevent casualties who can be salvaged and held at a given installation from being evacuated farther to the rear, and (3) removing symptoms as completely as possible to hasten rehabilitation in cases not returned to combat, but needing reclassification for noncombat duty.

Section IV. Summary and Conclusion

Lloyd J. Thompson, M.D.

SUMMARY

The histories of the First, Third, and Seventh U.S. Armies revealed similarities and differences in their modes of operation. Although much that has been said may appear repetitious to the casual reader, the fine

differentiations in the neuropsychiatric approach, the tactical situations, the time relations, and the ultimate results should be of interest to the keen analyst of medical history.

In general, after the German offensive in the Ardennes in the latter half of December 1944, neuropsychiatric problems in the entire European theater gradually diminished. For the First U.S. Army, which received the full force of the German offensive, this reverse was responsible for a much lower incidence of psychiatric casualties than were previous military reverses. For example, during the Kasserine Pass action in North Africa, over 40 percent of admissions to medical units were neuropsychiatric while in the Ardennes "breakthrough," psychiatric patients constituted only 9 percent of the admissions for the First U.S. Army.

Some psychiatric casualties were probably killed or captured, sometimes as a direct result of their condition. Also, not a few psychiatric patients reached communications zone hospitals without entering Army installations. More important, perhaps, was the reaction on the part of the individual, based upon a personal hatred of the enemy which developed suddenly as a result of German tactics and practices in this action. To many soldiers, war became very personal and not just a maneuver. Adding to the motivation were chagrin and surprise that the heretofore victorious U.S. Armies could be "pushed around" in this way. The successful comeback in January 1945 was reflected in a relatively low incidence of psychiatric casualties and an increased rate of return to duty. In the following 3 months, greater emphasis on treatment in forward areas (battalion aid stations), on expansion and use of rest areas, and on the policy of providing 30-day furloughs in the United States materially contributed to the lowering incidence of neuropsychiatric problems. (See charts 5 and 6.)

The Third U.S. Army swung north at the time of the German offensive to cut off the "bulge." In a short time, this became a successful action. Then, after some difficult fighting before crossing the Rhine, this Army fanned out in open movement and the incidence of combat exhaustion diminished rapidly. (See charts 7 and 8.)

The Seventh U.S. Army, composed of veteran combat units, came into the theater with the "exhaustion center" plan and continued on this basis. At first, a platoon of a clearing company was used, but it soon became necessary to use the entire company. However, much of that time the company was split into three units, one for each corps. This variation from the use of the exhaustion centers in the First U.S. Army proved to be satisfactory. Until late in the campaign, the exhaustion center was able to evacuate directly to the 51st Station Hospital (NP), but after crossing the Rhine, such evacuation became impractical and then impossible when air evacuation had to be used. The experienced division neuropsychiatrists and the forward medical officers did excellent work in preventing and treating combat exhaustion. (See charts 9 and 10.)

CHART 5.—*Admissions, all causes, First U.S. Army, 9 June 1944–8 May 1945*

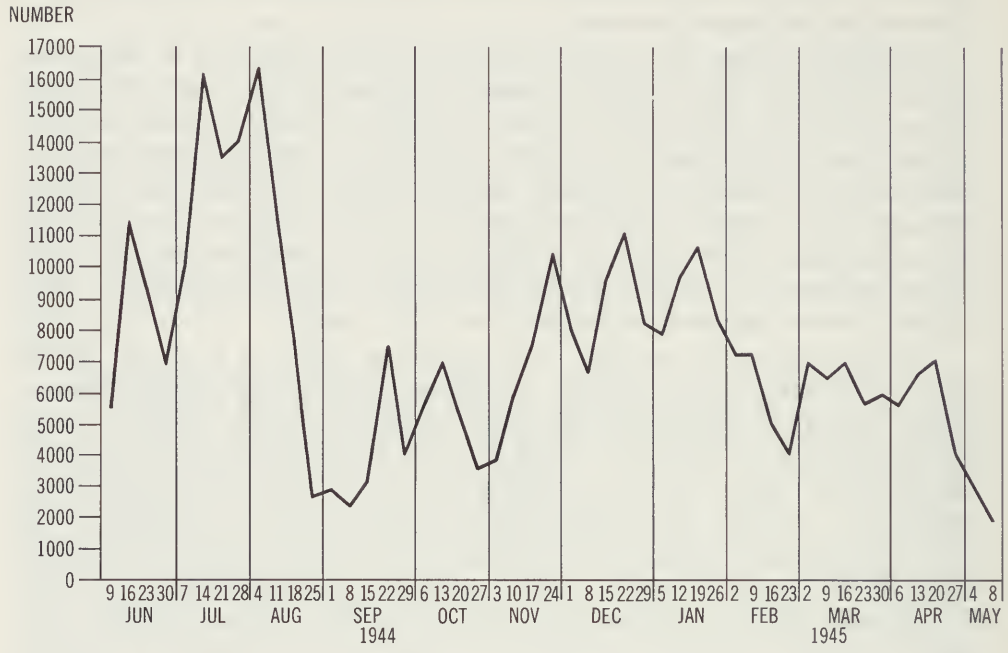


CHART 6.—*Neuropsychiatric admissions, First U.S. Army, 9 June 1944–8 May 1945*
[Rate expressed as number of admissions per 1,000 mean strength per year]

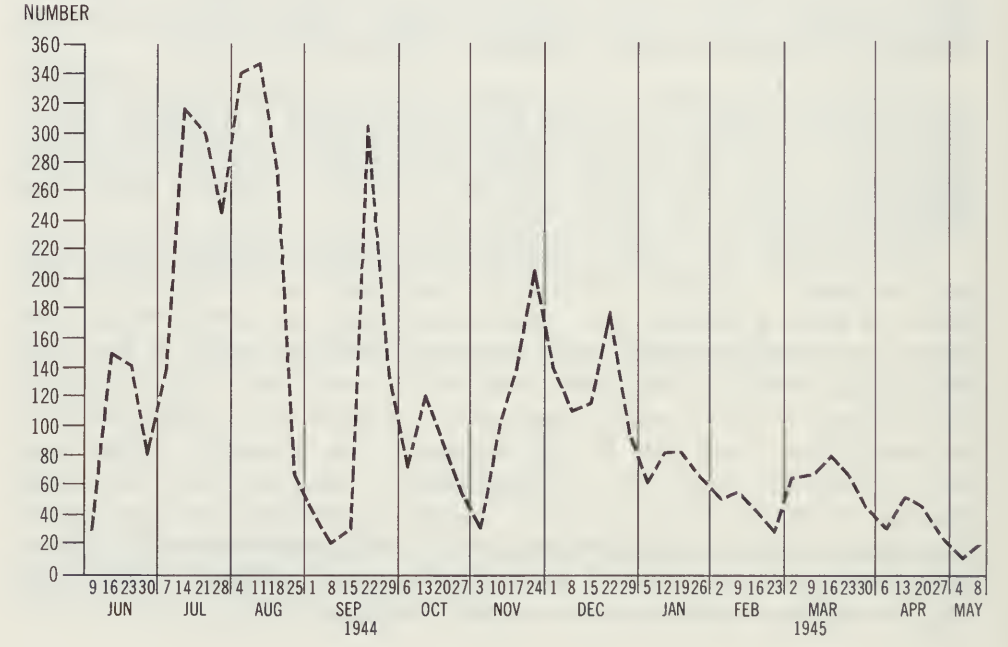


CHART 7.—*Admissions, all causes, Third U.S. Army, 4 August 1944–8 May 1945*

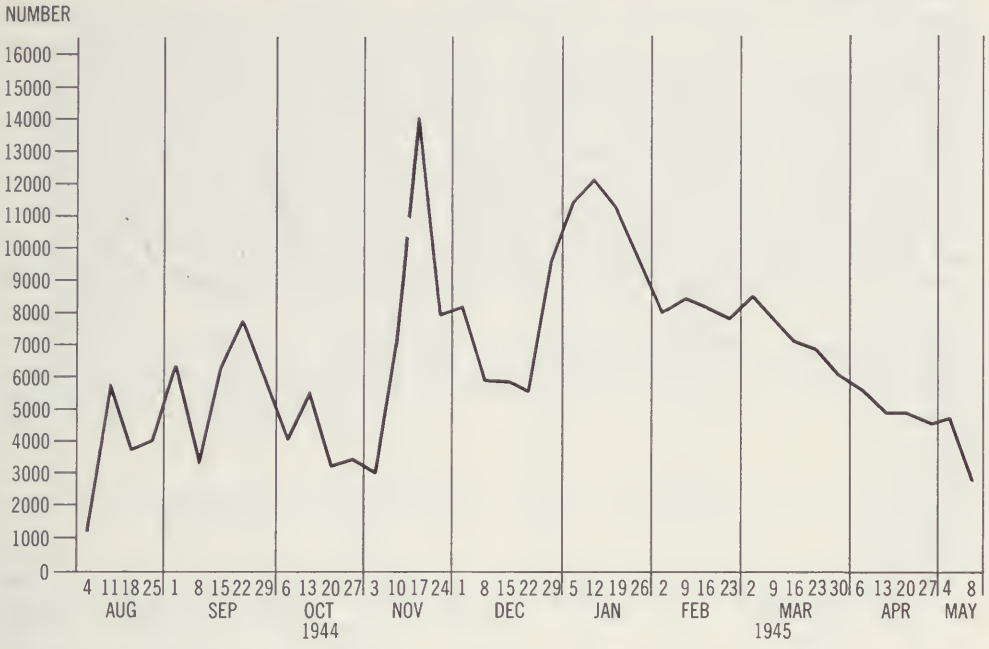


CHART 8.—*Neuropsychiatric admissions, Third U.S. Army, 4 August 1944–8 May 1945*

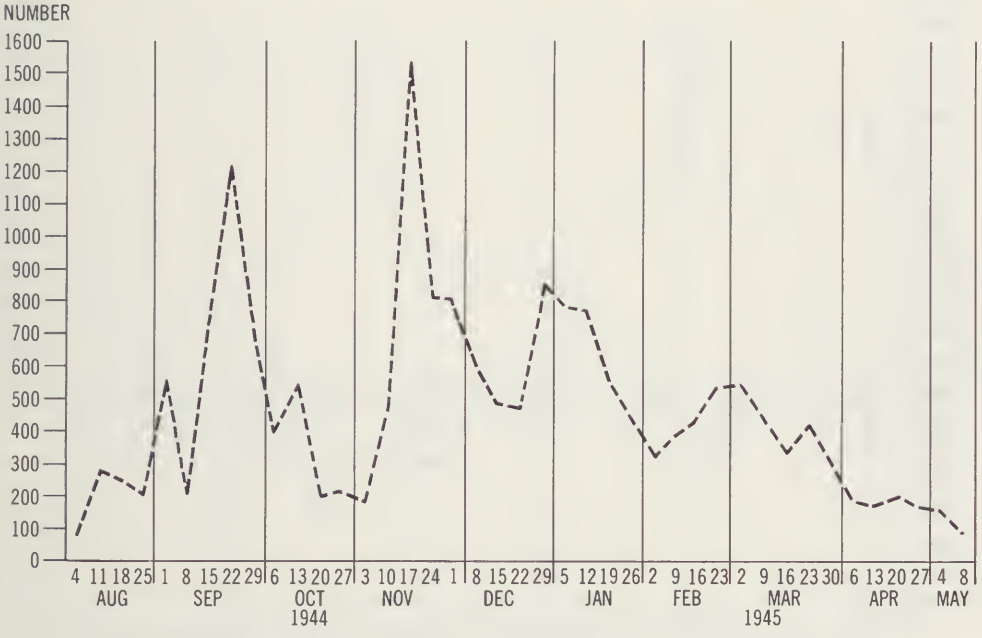


CHART 9.—*Admissions, all causes, Seventh U.S. Army, 24 November 1944–8 May 1945*

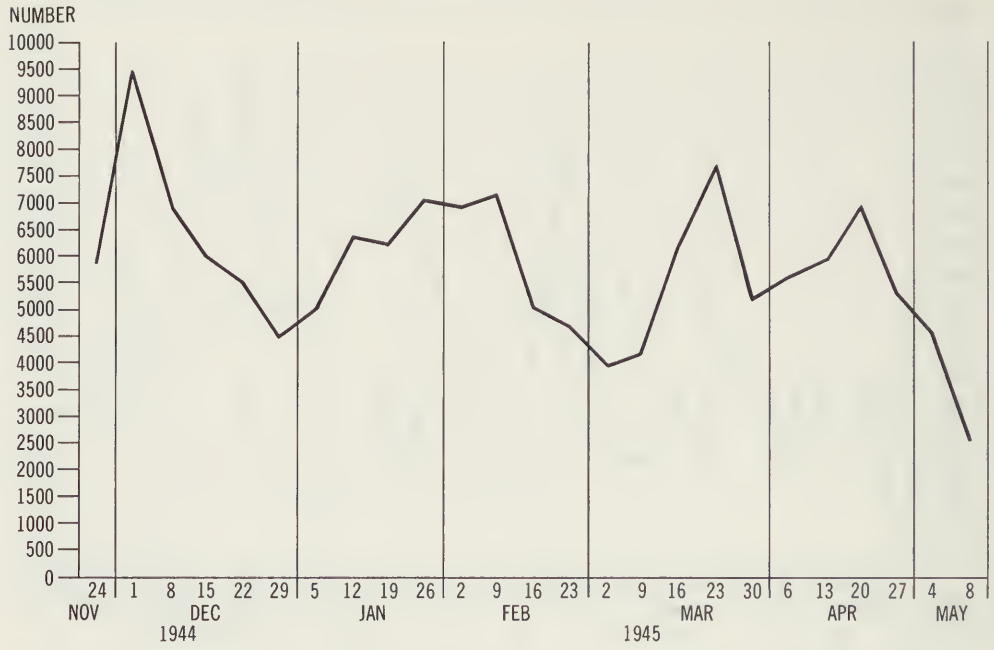
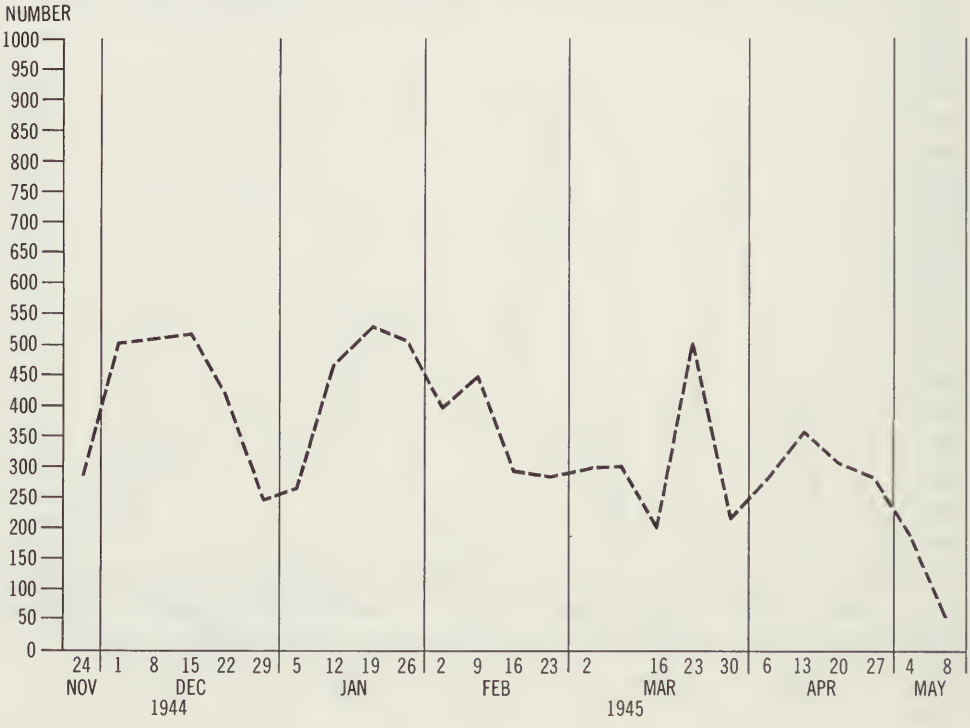


CHART 10.—*Neuropsychiatric admissions, Seventh U.S. Army, 24 November 1944–8 May 1945*



The Ninth U.S. Army had the lowest incidence of neuropsychiatric disabilities and the highest rate of return to duty. While it is true that this army was not in combat as much as the other armies (except the Fifteenth), it did contain veteran units that had fought with other armies. A gas treatment battalion was used as the "housekeeping" unit of the exhaustion center until the last 2 months when it became possible to use a field hospital. The latter unit demonstrated that its table of organization was better suited for this function than those of other units. This arrangement was recommended in January 1944, but field hospitals could not be obtained for this purpose until the aforementioned experience. (See charts 11 and 12.)

The Fifteenth U.S. Army was in combat for such a comparatively short time that very little could be added to the experiences given for the other armies. (See chart 13.)

CHART 11.—*Admissions, all causes, Ninth U.S. Army, 8 September 1944–8 May 1945*

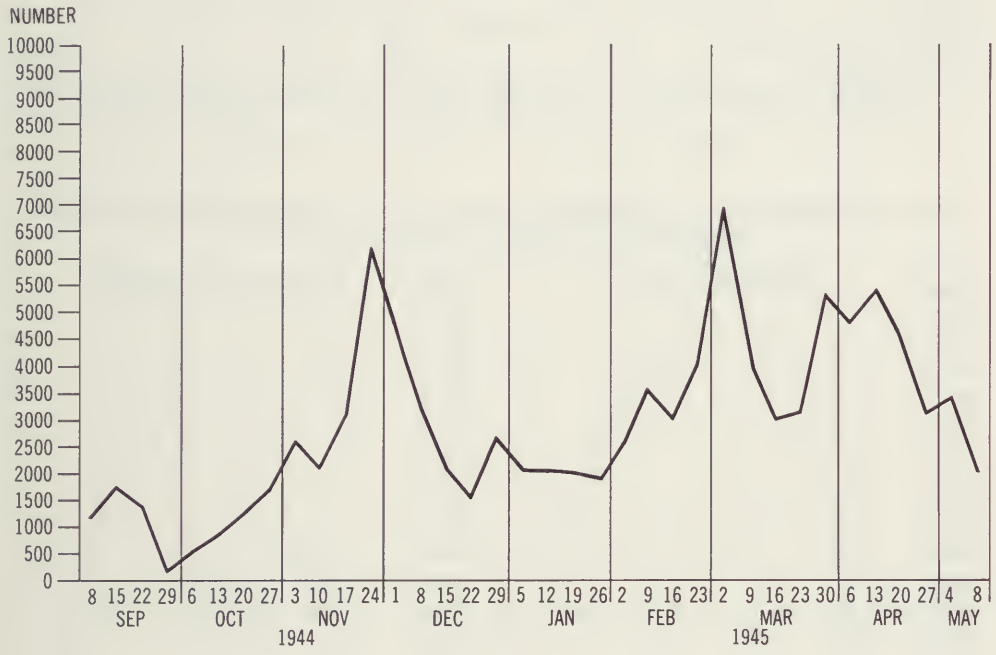


CHART 12.—*Neuropsychiatric admissions, Ninth U.S. Army, 8 September 1944–8 May 1945*

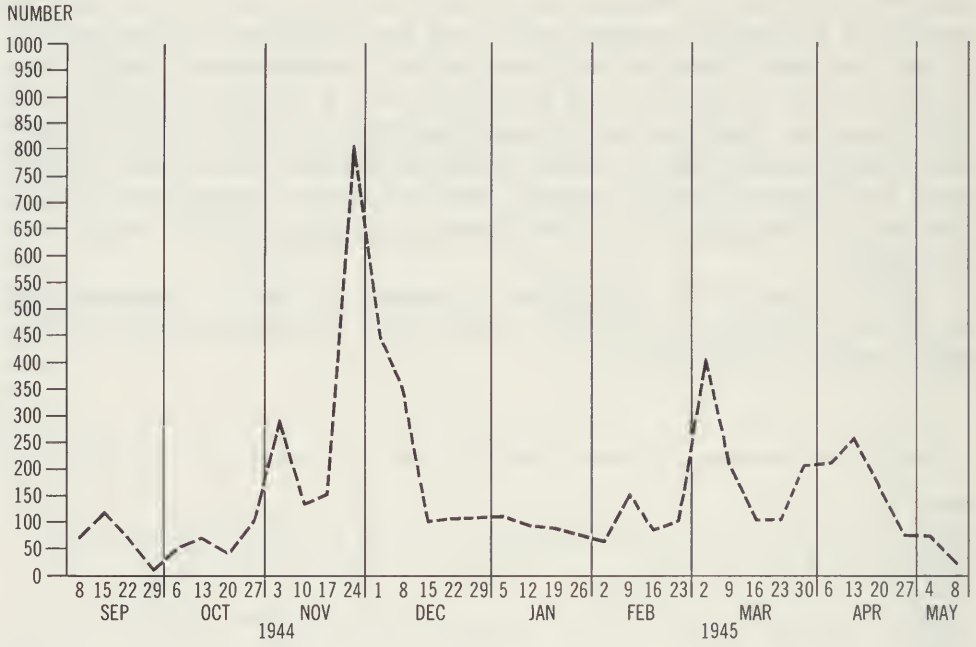
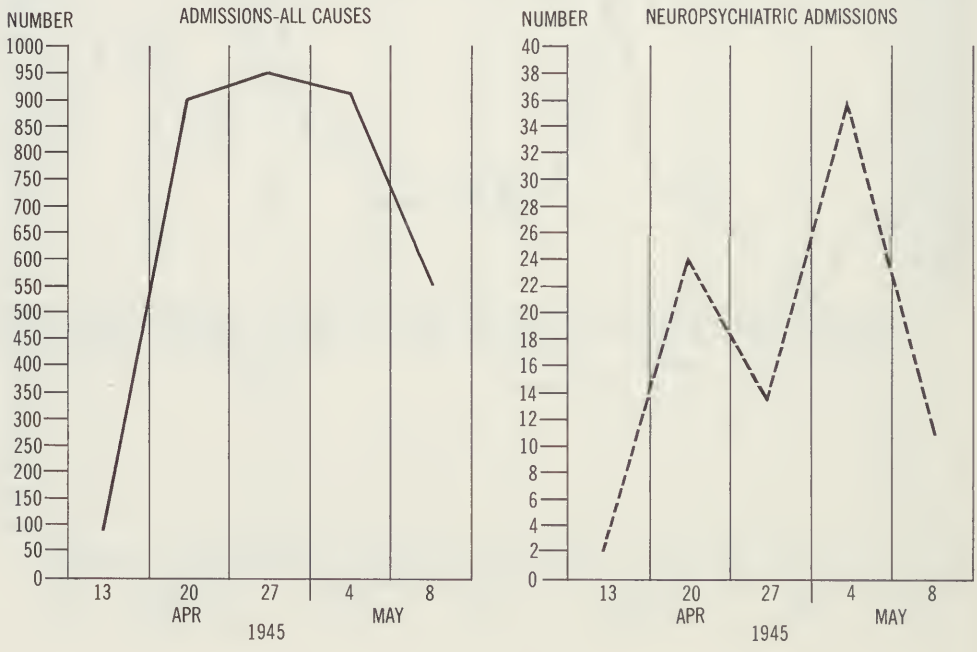


CHART 13.—*Comparison of admissions, all causes, with neuropsychiatric admissions, Fifteenth U.S. Army, 13 April–8 May 1945*



CONCLUSION

The neuropsychiatric services in the armies and divisions in the European theater proved that the lessons learned in combat neuropsychiatry in the Mediterranean theater could be implemented and used to good advantage. All armies issued directives pertaining to the prevention and treatment of combat exhaustion. *The First Army Medical News, No. 7,* dated 17 May 1944, gave four pages of information on "Neuropsychiatric Procedures" and covered details of treatment, evacuation, prevention, and morale. The Third U.S. Army on 28 January 1945 published two articles on neuropsychiatry. One, entitled "Prevention of Neuropsychiatric Casualties," was included with several other articles under "Preventive Medicine." The other dealt with "Treatment of Neuropsychiatric Conditions in the Combat Zone." In the Seventh U.S. Army, Circular Letter No. 4, dated 2 August 1944, gave all the pertinent material on the treatment and care of combat neuropsychiatric cases, in a condensed, easily assimilable form.

CHAPTER X

Neuropsychiatry in Airborne Divisions

Arthur L. Hessin, M.D.

The airborne concept, as developed during World War II, was a unique and outstanding contribution to military tactics and history. This concept rapidly materialized into a series of notable achievements which, by the very nature of the daring and dramatic actions in combat, gave to each airborne soldier a sense of prestige, esprit de corps, and individualized popularity that was unequaled in any other branch of the U.S. Army.

AIRBORNE CONCEPT AND ITS DEVELOPMENT

Airborne invasion and tactics made possible sudden thrust into enemy territory to disrupt enemy supply lines and establish a strategic point as a goal for the advancing aggressor forces. The requirements for rapid mobilization and maneuverability of troops, with the advantages of the element of surprise, were considered to be logistically sound when based upon the principles of air invasion through the use of gliders and parachutes.

The initial phase of this concept was introduced in 1940 when Lt. Col. (later Maj. Gen.) William C. Lee, in the Office of the Chief of Infantry, was ordered to develop a program for training paratroopers and organizing airborne units. The result was authorization for a test platoon of 48 enlisted volunteers from the crack 29th Infantry Regiment at Fort Benning, Ga. This same year, a mass jump was made for study by the War Department. The result was authorization for the organization of the 501st Parachute Battalion in September 1940, with Maj. (later Maj. Gen.) William M. Miley as commander.[1]

Early in the following year, the 501st Provisional Parachute Group was established, and a cadre from it activated the 502d Parachute Battalion. Members of this group jumped in the 1941 maneuvers of the First U.S. Army, and in the same year, the Army also staged its first airborne training exercise near Rio Hato, C.Z. There, the 550th Infantry Airborne Battalion, reinforced by a company from the original 501st Battalion, seized an auxiliary field near the Panama Canal. As a result of this exercise, the Parachute School was established in 1941 under the Infantry School at Fort Benning.

[1] Waddell, L. S.: The Airborne Story, Part I. The Pegasus (published by the Fairchild Engine and Airplane Corp. as a service toward greater understanding of the military, social, and economic effects of aviation), June 1954.

In 1942, troops were assembled at Camp Claiborne, La.; later, they were moved to Fort Bragg, N.C., where they began airborne training, first under Maj. Gen. (later General of the Army) Omar N. Bradley and then under Maj. Gen. (later Lt. Gen.) Matthew B. Ridgway.[2] It was at Fort Bragg and at nearby Camp Mackall, N.C., that the 11th, 13th, 17th, 82d, and 101st Airborne Divisions prepared themselves for overseas shipment and combat in World War II; all, except the 11th Airborne Division, were sent to the European theater. A listing of their commanding generals, division surgeons, and division psychiatrists follows.

	Dates served
82d Airborne Division:	
Commanding General:	
Gen. Omar N. Bradley	March–August 1942
Maj. Gen. Matthew B. Ridgway	August 1942–April 1945
Maj. Gen. James M. Gavin	August 1944–March 1948
Division surgeon:	
Lt. Col. Wolcott L. Etienne, MC	February 1943–June 1944
Lt. Col. William C. Lindstrom, MC	June 1944–October 1945
Lt. Col. Edward Sigerfoos, MC	December 1945–March 1946
Maj. Arthur L. Hessin, MC	March–May 1946
Division psychiatrist:	
Lt. Col. William C. Lindstrom, MC	May 1944
Maj. Albert B. Chapla, MC	August 1944–September 1945
Maj. Harry A. Rock, MC	December 1944
Maj. Arthur L. Hessin, MC	December 1945–March 1946
101st Airborne Division:	
Commanding General:	
Maj. Gen. William C. Lee	August 1942–February 1944
Maj. Gen. Maxwell D. Taylor	March 1944–September 1945
Brig. Gen. Gerald St.C. Mickle	September–October 1945
Brig. Gen. Stuart Cutler	October–December 1945
Division surgeon:	
Maj. (later Lt. Col.) David Gold, MC	August 1942–August 1944
Maj. (later Lt. Col.) William E. Barfield, MC	October 1944–June 1945
Lt. Col. Edward Sigerfoos, MC	July–December 1945
Division psychiatrist:	
Maj. William H. McCullagh, MC	May 1944
Maj. Harry A. Rock, MC	January–December 1944
Maj. Alvin I. Kay, MC	February–June 1945
Maj. Arthur L. Hessin, MC	July–December 1945
17th Airborne Division:	
Commanding General:	
Maj. Gen. William M. Miley	September 1942–September 1945
Division surgeon:	
Lt. Col. Edward Sigerfoos, MC	August 1943–June 1945
Lt. Col. William E. Barfield, MC	July–September 1945

[2] Palmer, Robert R., Wiley, Bell I., and Keast, William R.: The Procurement and Training of Ground Combat Troops. United States Army in World War II. The Army Ground Forces. Washington: U.S. Government Printing Office, 1948, p. 491.

	Dates served
Division psychiatrist:	
Maj. Arthur L. Hessin, MC	November 1943–June 1945
Maj. Alvin I. Kay, MC	July–September 1945
13th Airborne Division:	
Division surgeon:	
Lt. Col. Rollin F. Bunch, MC	August 1943–August 1945
Division psychiatrist:	
Maj. Stanley B. Crosbie, MC	November 1943–October 1945
Maj. Frank J. Imburgia, MC	October 1945–February 1946

BUILDUP OF AIRBORNE TROOPS

The five airborne divisions were activated between March 1942 and August 1943. Programs for acquiring and training soldiers were operated almost simultaneously. It was deemed urgent to move the men into the communications zone as soon as possible and, subsequently, into the combat zone. Many prospective parachutists and glidermen were unable to complete the strenuous training program. Initially, it became quite evident that psychiatric problems, stemming from the quality of personnel assigned to airborne duties, were becoming a matter of concern at command level. Thus, in 1942, when Ground Forces field commanders protested repeatedly to Headquarters, Army Ground Forces, that they were receiving men of too low a mental quality to be trained, Army Ground Forces simply rejected their requests for preferential personnel assignments. An exception, however, was made only for airborne divisions which were authorized to clear out their men in Group IV and Group V (lowest two categories of the intelligence scale then employed by the Army) of the Army General Classification Test in excess of the Army average.[3] Since the Army average itself was better than that of the Army Ground Forces, this policy constituted preferential treatment for the airborne divisions.

About a year later, the problem was in connection with the proper selection of applicants for parachute training. To assure such selection, the Surgeon General's Office directed that medical officers carefully evaluate the physical and mental qualifications of all applicants for parachute duty, with an explanation, as follows:

> The very nature of parachute duty attracts many psychopaths and emotionally unstable individuals. Certain inadequate individuals may attempt to utilize this spectacular duty to disprove to themselves their feelings of inadequacy. The applicant's response to the question: "Why do you want parachute duty?" is very important. An illogical, evasive irrelevant answer, or a statement, direct or inferred, that they are requesting the duty to "get even" with someone who they feel wronged them should raise suspicions as to their suitability for this duty.[4]

Fortunately, it proved unnecessary for general-duty medical officers to make such examination in the airborne divisions for, just a month

[3] Palmer, Wiley, Keast, *op. cit.*, p. 491.
[4] Circular Letter No. 200, Office of The Surgeon General, U.S. Army, 9 Dec. 1943.

earlier, the War Department had authorized the assignment of a neuropsychiatrist to each division in the Army Ground Forces.[5]

When this authorization was released, two of the five airborne divisions had already left the United States. The three remaining divisions had acquired psychiatrists in November 1943. Table 52 shows the dates the divisions were activated and the dates of their movement to the port of embarkation. The newly assigned airborne division psychiatrist, therefore, apparently had to deal not only with the customary reactions to impending combat and the adjustment of soldiers to military discipline and environment, but also with their reactions stemming from the vicissitudes of the airborne way of life.

TABLE 52.—*Dates of activation and movement to port of embarkation, 11th, 13th, 17th, and 101st Airborne Divisions*

Airborne division	Date of activation	Date of movement to port of embarkation
82d	March 1942	April 1943
101st	August 1942	August 1943
11th[1]	February 1943	April 1944
17th	April 1943	August 1944
13th[2]	August 1943	January 1945

[1] The 11th Airborne Division was sent to the Pacific theater; all others were sent to the European theater.

[2] The 13th Airborne Division was not committed to combat in the European theater.

The reactions, responses, and attitudes of the men in an airborne unit created, as was planned, the feeling of a "rough and ready" outfit. One particular division maintained it was the "tougher than" outfit—tougher than the infantry, tougher than the armored, and so on. Great emphasis was placed on physical fitness, well beyond normal requirements. Emphasis was also placed upon individual and group fighting; survival and hardship experiences were pushed. Psychological devices were employed to indoctrinate the men with the "airborne" way. Pride of organization reached such proportions that, in a very short time, it was not difficult for paratroopers to become convinced that they were the finest outfit in the world.

Any individual who could survive the intensive, demanding, and exhausting requirements of the Parachute School could be counted on to lead a daring, devoted, and dedicated way of life forever, or at least for as long as the airborne would stick together—and that seemed as though it would be forever.

Some phases of the training program were nothing more than endurance contests, and many a curse was hurled at the whole idea. One day's effort included calisthenics; practice falls out of mockups; chinning on risers; rope climbing; jumps from the jump tower; and 25 or more pushups for

[5] War Department Circular No. 290, 9 Nov. 1943.

every trick command that could not be detected, or for inattentiveness, yawning, or hands either folded or in pockets. The day's effort ended with either 6 miles of double timing with short breaks or a 30-minute uninterrupted "parachute shuffle." It can be readily understood that most of the applicants who failed to complete the course dropped out during the ground training. If the trainee completed the course and survived the initiation party, or "prop blast," he was apt to believe in the not unjustifiable conviction that he really was about the toughest soldier in the Army. It is a matter of interest that, even with a great many paratroopers graduating from their own division parachute school, the Parachute School at Fort Benning alone, in its peak years, 1943 and 1944, gave parachute training to 59,500 troopers.

The remainder of the division troops consisted of those men who did not volunteer for jumping—the glidermen. Generally speaking a more conservative group, they were, nevertheless, exposed to the rigors of the airborne division's enthusiastic, highly geared activities and its constant indoctrination. Although the glider elements did not seem to arouse as much empathy, there remained the fact that riding in a glider behind a towplane, to be cast off and forced down in terrain that would give little or no opportunity for other than a crashlanding—eventually to accomplish this in enemy territory—required a generous degree of stamina or intestinal fortitude. If any individual proved to be incapable of retaining himself on either status, he was, obviously, transferred out of the organization.

AIRBORNE DIVISION PSYCHIATRY

The most suitable and most effective role for the psychiatrist to adopt, living and associating as he did with airborne personnel, involved early recognition of all the factors contributing to the airborne way of life plus a capacity to modify many accepted psychiatric principles.

As the training progressed, the division psychiatrist developed an awareness that, over and above the routine problems inherent in any division, there were referrals dealing directly with an individual's inability, or refusal, to jump. In this respect, only two groups were considered; namely, those who jumped and those who didn't jump. In dealing with the second group only, two factors were considered: (1) The time or phase element in the period of training in which refusal to jump occurred and (2) the basic or underlying personality structure of the trainee. It should be remembered that originally all these individuals had volunteered to jump.

The time factors included two phases in jump training and a third phase following completion of jump training. After ruling out occasional mentally deficient cases, which still sifted through into the training schedule, three general personality categories took shape: (1) The inadequate

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personality, (2) the obsessive-compulsive reaction, and (3) the emotional instability reaction.

The first phase, or ground training, quickly exposed the inadequate personality. Such a person had never previously shown any ability for persistence in the face of obstacles, and he did not on this occasion develop sufficient motivation to achieve his goal. The adventurous life of a paratrooper was appealing enough to volunteer, particularly since one might obtain some feeling of esteem, but the cost in expenditure of effort was too great. This type of individual customarily dropped out on the very first day after being placed into a strenuous, overtaxing, and exhausting physical program. If he had capacity to persist for a few days, the next major hurdle was the requirement of jumping from a tower. It may be pointed out here that it takes considerably more "guts" to jump from a 50-foot tower than it does from a plane flying at an altitude of 800 or 1,000 feet because the perspective is considerably more apparent at the lower level. More prospective troopers dropped out when confronted with the prospect of jumping from a tower than at any other phase of training or at any time during the posttraining period.

In the second phase of training, when the school took to the air, every trainee had already mastered the jump tower. In the qualifying five jumps, one of which was at night, the motivating drive was more than sufficient to overcome any resistance. Almost without exception, trainees made the five jumps.

Finally, in the posttraining phase, when all jumpers were qualified, there came the indeterminate period which required jumping only upon order. Jump status and the associated jump pay were thereby maintained so long as the paratrooper never refused to jump. If temporarily disabled through injury or disease incurred in line of duty, he would be retained on jump status. If any medical condition developed that was a contraindication to further jumping, he would be removed from jump status. At any time a paratrooper was transferred to a division or unit that was other than airborne, he would automatically lose his jump status and jump pay, although he could continue to wear his paratrooper badge. On the other hand, should any paratrooper refuse to jump while in an airborne unit or division while on jump status, he was liable to be court-martialed. He had volunteered initially, and much time, money, and effort had been expended to develop him into a fully qualified paratrooper. Any letdown of obligations was a serious matter. A psychiatric evaluation would certainly be made to determine whether or not any refusal stemmed from some underlying condition.

As noted, the inadequate personality became apparent early in training; with few exceptions, such an individual did not reach the point of being required actually to jump from a plane. The remaining two categories concern trained paratroopers who refused to jump. The first was rare and

comprised cases of obsessive-compulsive reaction. Such a perfectionistic individual is convinced that he can qualify in every possible activity to achieve an impressive record. Therefore, even though this type of person might have had a strong fear of jumping, or a dread of heights or of flying, nevertheless he would volunteer for jump training. The individual's compulsive drive to achieve was sufficient to overcome the opposing fear and permit the completion of the training phases to attain the goal. Once he had established status as a qualified parachutist and exhibited it by wearing the coveted parachute wings, motivation was abolished. The underlying fear of heights or of flying, now unopposed, culminated in refusal to jump any more. Psychiatric testimony in such a case would divert court-martial proceedings.

By far the greater number of jump refusals in qualified parachutists occurred in those individuals categorized as character and behavior disorders. Although quite capable of accomplishing a jump, this type of person would refuse to jump because of some intense desire to "get even" with another fellow jumper, the jumpmaster, his immediate superior, or the Army in general. The emotionally unstable individual, by being "just plain ornery," would proceed to obstruct normal procedures. He might very well proceed to jump the next time without disruption to the all-important teamwork.

In summary, these three principal types of individuals who gave evidence of one sort or another of failing to execute a parachute jump might be more aptly defined in this fashion: (1) the inadequate personality CANNOT jump, (2) the psychopathic personality WILL NOT jump, and (3) the obsessive-compulsive personality CANNOT WILL to jump.

In his evaluation of the paratroopers who were prone to say, "You don't know what it feels like, Doc," the author, division psychiatrist of the 17th Airborne Division (who became the only qualified parachutist in the group of psychiatrists assigned to the airborne divisions at that time), observed that his possession of "wings" was of immense value in developing a close relationship to the airborne personnel and in assisting them, through identification, to remain on, or to be reinstated on, jump status.

At the same time, the frequency of requests for evaluation by the division psychiatrist, before administrative or disciplinary action, fostered the feeling that there were a great many "psychopaths" in each outfit. Yet, later, in correspondence with other officers, replies reflected the airborne spirit but were considerably on the optimistic side. One former officer, for example, wrote that, so far as he could remember, there were no psychiatric problems in the particular unit he commanded because his unit was "one of the finest in the world!"

In keeping with the observations that many so-called psychopaths volunteered for the airborne and parachute training, a large percentage

found the airborne way of life acceptable. Command levels appeared to be lenient and often supported and encouraged a degree of acting-out behavior which may not have been tolerated in other Army elements. There can be no doubt that this approach was chosen for psychological reasons. One commanding general, for example, addressed his entire division and admonished the troops because one of them had wrecked a beer tavern. He described as unwarranted and foolish an action which placed a man of his division in a position to be overpowered by the MP's (military police). The general warned that this behavior would not be condoned—that he expected his men to be smart enough to go in, in groups, and to be able to beat up any of the MP's! The incentive for a paratrooper to move in quickly, act fast, and take care of himself would undoubtedly pay off well in any airborne invasion to come.

INVASION TACTICS BY PARACHUTE AND GLIDER

Many combat experiences, reactions, stresses, deprivations, and even fatigue were common to both the airborne and the infantry. However, only those areas where differences appear to exist are considered in this discussion. The rather obvious difference is that most missions of the airborne divisions begin with invasion by parachute and glider. Some conception of the psychological and emotional effects that this method of engagement with the enemy would have on the airborne soldier may be understood from the account which follows.

The first major allied airborne operation of World War II occurred during the invasion of Sicily on 10 July 1943, with U.S. paratroopers (Operation HUSKY No. 1) and British glider elements. The complexities which occasioned a startlingly low degree of glider efficiency in combat became readily apparent. During the afternoon when the glider elements were aloft, a high wind added to the difficulty of staying on course, and most of the towplanes missed the first check point on Malta. After coming on course again at Cape Passero in southeastern Sicily, several pilots, noting the velocity of the wind, rose to an altitude of 1,800 feet before signaling for release of their gliders; others, having encountered flak at several points along the route, swung wide from the fire, thus moving off course—although there was no fire within several thousand yards of the two release zones selected.

Contributing further to the generally poor execution that characterized the mission was the inadequate training of the glider pilots, some of whom had not advanced beyond the first solo stage of instruction at the time of their arrival in Africa. Not a single towplane was lost. However, of the 133 gliders released, only 12 landed in the general vicinity of the landing zone, at least 47 came down in the sea, and the remainder landed at various points in the southeastern part of the island. Of the 1,600 troops carried

by the 133 gliders, eight officers and 65 enlisted men came down in the drop zone.

In Operation HUSKY No. 1, C–47's carried 2,781 paratroopers of the U.S. 82d Airborne Division, 891 parapacks, and hundreds of paratroop dummies. Because of delays resulting from similar complications, "the planes approached the drop zones in almost complete darkness and were unable to pick out the final check points. Fires and smoke resulting from earlier bombardment * * * further obscured the drop zones, and the paratroopers were dropped over widely scattered areas." [6]

To the account of the preceding operations may be added a brief statement of the experience of Operation HUSKY No. 2. Approximately 2,000 paratroopers of the 504th RCT (Regimental Combat Team) took off from Tunisian fields in 144 C–47's. As described in "The Army Air Forces in World War II": [7]

> * * * the decision to mount the operation had been made hurriedly on the very day of its execution, and insufficient time had been allowed for warning Allied naval vessels along the route. Only too late was it learned that a safety corridor had not been cleared and that the enemy had retaken the drop zone * * *. Their unheralded descent at widely scattered points caused confusion: Allied troops were alerted against German parachutists—the 1st Division even carried the 504th RCT as an unidentified enemy parachute regiment in its G–2 report * * *. As a result, the 504th suffered heavy casualties which General Eisenhower considered to be "in excess of any real damage inflicted on the enemy."

Although the psychological impact of Operation HUSKY No. 2 on the paratroopers can have been little less than shattering, 2 months later, on 13 September 1943, in mission GIANT I (Revised) 600 men were dropped within 200 yards of the drop zone 3 miles south of the Sele River in Italy, without the loss of a man or a plane and with only one man injured. This was followed the next night by GIANT IV, in which 1,900 men of the 505th Regiment were dropped, all except some 40 men landing within 1½ miles of the drop zone.[8]

The course of action of the troops of the 82d Airborne Division then followed the pattern of an infantry division in its drive from the Salerno beachhead through to Naples. During the month of October, the occupation and policing of Naples proved to be uneventful. The division moved in November 1943 to Ireland and in February 1944 to England, where it began intensive training for the coming invasion of Normandy. The comment made by the division surgeon, covering this training period, was that the screening of unfit personnel received considerable attention throughout the period until actual time for participation in the invasion of the Continent.[9]

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[6] Craven, Wesley Frank, and Cate, James Lea (editors): The Army Air Forces in World War II. Volume II. Torch to Pointblank, August 1942 to December 1943. Chicago: University of Chicago Press, 1949, p. 449.

[7] *Ibid.*, p. 454.

[8] *Ibid.*, p. 531.

[9] Annual Report, Surgeon, 82d Airborne Division, 1944.

The psychiatric screening of troops before a combat mission was also being experienced in the 101st and, later, the 17th Airborne Divisions in England. The intensive aggressor-type training made the rest periods, during which the division recouped its strength, seem like periods of relief from combat. These troops were being maintained in the peak of physical condition and sustained themselves, in the spirit of the airborne, at hair trigger pitch in anticipation of the next combat jump or glider landing. Elements of a juvenile attitude—the impulsive act and precipitate bouts of anger and elation—and determined and sometimes ruthless acts of aggression were frequently observed during both training and leisure time. Pretrial evaluations by the psychiatrist were not uncommon. Proper recognition of induced manifestations—as opposed to the seemingly inherent qualities of aggressiveness in the character and behavior disorder group—was often difficult. The ideal composite airborne trooper appeared at his best when it was known that he was not a "psychopath" but could certainly behave like one.

The occurrence of inadequate personalities and psychoneurotic reactions, so prevalent in the preliminary training phases in the Zone of Interior, was, to a large extent overseas, a thing of the past. However, replacements, particularly in the gliderborne troops, arriving in a nonvolunteer status were potential problems of these types.

In the fine combing of troops, a company or battalion commander endeavored to "clean house," just before being committed to a combat phase. The funneling of seemingly undesirable individuals through medical channels to the division psychiatrist would create a sudden influx in the otherwise constant flow. In the early phases of combat experience, when these influxes occurred, it was generally expedient to recommend transfer out of the division so that any problems that might have arisen from difficulties within the unit could be resolved. It was not feasible to consider administrative measures during the crucial phase of precombat preparations.

INVASION OF NORMANDY (OPERATION NEPTUNE)

Operation NEPTUNE, the airborne phase of Operation OVERLORD, was one of the most famous episodes in the chronicles of World War II, for " * * * the most dramatic innovation in military tactics was the landing of airborne troops behind enemy lines. The American public was deeply impressed by the sight, in newsreels and photos, of skies filled with billowing parachutes as men fell earthward to encircle the enemy. The hardened paratrooper, with his peculiar gear, became a special kind of fighting hero, and his jumping cry, Geronimo, became almost a byword." [10]

[10] Craven, Wesley Frank, and Cate, James Lea (editors): The Army Air Forces in World War II. Volume VI. Men and Planes. Chicago: University of Chicago Press, 1955, p. 621.

The I Troop Carrier Command which supervised the training of Air Forces units in airborne operations should, therefore, not go unrecognized for its great accomplishments: "From December 1942 until August 1945 it produced more than 4,500 troop carrier crews. * * * some 5,500 glider pilots were prepared for their special function." [11]

On 6 June 1944, the 82d Airborne Division under the command of General Ridgway and the 101st Airborne Division, commanded by General Taylor, spearheaded the invasion of Normandy. The paratroopers were dropped first, and the gliders went in at night. The mission at command level was successful in that enemy reinforcements were effectively cut off. For 33 days, without relief, the 82d fought its way in France from Carentan to Saint-Sauveur-le-Vicomte. On 8 July, this division was relieved. The 101st, against fierce resistance, took Pouppevile, Vierville-sur-Mer, and Saint-Côme.

On 12 June, the stronghold of Carentan fell, and on 13 July, after mopping up and maintaining its positions, the 101st was relieved. In general terms, one whole battalion of Eagles (the 101st) was completely wiped out while landing on D-day. In the 82d Airborne Division, just under one-half of General Ridgway's men and officers fell as casualties during the 33 straight days of rugged action.[12]

In Operation NEPTUNE, the 82d Airborne Division sent in a small number of parachute aidmen from the medical company with the parachute elements of the division on H—D-day. A small glider lift went in at this time, accompanied by the division surgeon and the surgical team. Early in the afternoon of D-day, the lift containing the medical company was dropped. Many of the gliders landed in flooded areas, so that it was the morning of D+1 before the unit was organized for functioning. The commanding officer of the medical company was killed by shellfire just after landing.

The division elements that were dropped first were scattered over a large area. About 50 percent of the medical officers were unaccounted for during the first 72 hours. Every effort was made to consolidate pockets of troops isolated from each other, all with wounded. By the morning of D+1, it was possible to begin evacuation of casualties to the clearing station. On the afternoon of D+1, the final glider lift arrived and many glider injuries occurred, further loading the medical service. Evacuation to the rear was possible, and every available vehicle was used to move the transportable cases. On D+3, the tactical situation was such that the operation of the division as a ground unit actually began.[13]

One element of four medical officers and 45 enlisted men of the 326th Airborne Medical Company, 101st Airborne Division, landed in the combat zone by parachute. Another element of seven medical officers and 21 enlisted

[11] *Ibid.*, p. 622.
[12] See footnote 1, p. 375.
[13] See footnote 9, p. 383.

men went in by glider. The remainder of the company constituted the seaborne echelon. The medical detachments of the 501st, 502d, and 506th Parachute Infantry Regiments dropped on the Cotentin Peninsula, France, between Montebourg and Carentan at approximately H—4. The scattering of medical personnel made it almost impossible to provide anything like functional sections until many hours after daylight. At H+3, the division surgeon's section landed at Utah Beach and, with the medical company, proceeded to Chateau Colombier, 600 yards north of division headquarters, to establish the clearing station. Beginning with a large number of casualties, evacuation to the 261st Medical Battalion at Utah Beach, 5 miles distant, was shortly in operation. On 9 June, the clearing station was hit by aerial bombs, injuring five medical officers and nine enlisted men, and killing eight enlisted men. Care of the sick and the wounded continued until 24 June when the division was relieved.[14]

In each of the 82d and 101st Airborne Division clearing stations, one psychiatrist was assigned with two technicians. The percentage of neuropsychiatric casualties among total casualties in every combat mission of the 82d, 101st, and 17th Airborne Divisions in the European theater is presented in table 53.

Operation NEPTUNE resulted in 4,196 casualties for the 82d Airborne Division, of which 237 (5.6 percent) were neuropsychiatric; in the 101st Airborne Division, the total number of casualties was 2,704, of which 80 (3.0 percent) were neuropsychiatric. Days in combat numbered 38 and 19, respectively (table 53). In a comparison of these figures with the neuropsychiatric casualty rate of 20 percent for all divisions in the Italian campaign, and 15 to 20 percent for the Tunisia and Sicily Campaigns,[15] it is readily apparent that the rate is much lower in the airborne group despite the relatively high concentration of total casualties in so short a period of time.

At least two factors probably had some bearing on this low rate. One was described in the 82d Airborne Division surgeon's annual report for 1944, as follows: [16]

> In general, the problem of combat exhaustion within the Airborne Division is minimal as compared to the ordinary Infantry Division. It is of interest to note that each operation has produced about the same volume of neuropsychiatric casualties. It has been observed that the majority of our casualties have obvious neurological and psychic symptoms, almost always with loss of self-esteem, and do not rehabilitate at the Clearing Station level. Thus, the majority of these cases are evacuated beyond the Division. Not more than 25 percent are fully rehabilitated for combat duty.
>
> The principal reason for the low rate of this type of casualty is the high percentage of parachutists, all of whom are volunteers. The type of training they receive further weeds out potential psychiatric casualties. Unit training exposes more of them, and they are disposed of through medical channels. The nonvolunteer groups, the glider

[14] Annual Report, Surgeon, 101st Airborne Division, 1944.
[15] Letter, Col. J. I. Martin, MC, Surgeon, to Chief of Staff, Fifth U.S. Army, 8 Nov. 1943.
[16] See footnote 9, p. 383.

TABLE 53.—*Percentage of neuropsychiatric casualties among total casualties in each combat mission of the 82d, 101st, and 17th Airborne Divisions, in the European theater*

Combat period and location	Number of days in combat	Total number of casualties	Number of neuro-psychiatric casualties	Percentage of neuro-psychiatric casualties
	82d Airborne Division			
6 June–2 August 1943, Sicily	58			
14 September–1 October 1943, Italy	17			
6 June–13 July 1944, Normandy	38	4,196	237	5.6
17 September–17 November 1944, Netherlands	61	4,630	261	5.6
17 December 1944–17 February 1945, Battle of the Bulge	61	7,824	307	3.9
4–18 April 1945, the Ruhr	14	530	7	1.3
25 April–9 May 1945, the Elbe River	15	357	2	.6
	101st Airborne Division			
6–25 June 1944, Normandy	19	2,704	80	3.0
17 September–27 November 1944, Netherlands	71	3,972	151	3.8
19 December 1944–31 January 1945, Battle of the Bulge	43	4,992	102	2.0
	17th Airborne Division			
25 December 1944–10 February 1945, Battle of the Bulge	47	3,020	43	1.4
24 March–19 April 1945, Rhine Crossing	25	2,143	28	1.3

elements, are not so thoroughly screened by the training as airborne troops, but such screening does occur. Whenever replacements are received, the mere knowledge that they are in an airborne unit exposes a certain percentage of potential psychiatric casualties. Airborne training and unit training further aid in screening personnel. It is obvious, however, that it is not so completely accomplished as with parachutists, since the bulk of the casualties of this nature are found in the glider elements.

The other factor arose from the number of days of combat. The status of neuropsychiatric casualties in the Fifth U.S. Army during the Italian campaign was reported by the number of neuropsychiatric hospital admissions for the period from 9 September to 1 November 1943, as follows:[17]

Division	*Neuropsychiatric hospital admissions*
45th Infantry	408
3d Infantry	217
34th Infantry	88
36th Infantry	34
82d Airborne	1
1st Armored	1

[17] See footnote 15, p. 386.

The single admission from the 82d Airborne Division occurred during a relatively short combat period of 17 days (14 September–1 October 1943), whereas the number of combat days for the other elements listed here was considerably in excess of this. Accumulating tensions will, in time, exceed the individual's threshold or capacity, and these probably contributed to the 20 percent rate.

It appeared that the infantryman and the paratrooper were playing two different games. At the time the 200-day limitation for the infantrymen was being recommended, the surgeon of the 82d Airborne Division was introducing a recommendation for a rotation policy for the airborne soldier. His reasoning was as follows: [18]

> There is a general psychological problem common to all airborne troops, which should be given some consideration. It is somewhat similar in nature to the problem of combat air crews. The method of transportation of airborne troops, and the assault nature of employment produces the feeling of being "expendable." There is a noticeable tension among all the troops when an airborne mission is in prospect. This begins quite early in the battle experienced airborne soldier. Even relief from the line for reequipping and reorganization immediately puts forth the probability of a new mission, and the tension begins. It builds up to its peak at the actual moment of landing at the objective. Then relief is experienced for the first time. This "sweating out" of missions becomes worse with each succeeding mission. Finally, the troops feel they have only death, capture or being wounded to look forward to, as release from their fate. This, of course, is amplified by the continual disappearance of their comrades. It is recognized that this particular phase of the problem is common with ordinary ground troops. The additional mental trauma produced by the airborne phase of a mission among these troops was never so clearly demonstrated as in the move to participate in the Ardennes Campaign. The move was by truck and under considerable pressure for speed. But the general attitude of the group was relief from the hazards of being airborne. Many spontaneous remarks by all ranks clearly demonstrated their relief from tension. As one soldier expressed it, "they acted as though they were going to a picnic instead of a serious threat to the Allied Forces in the West."
>
> Because of the additional mental trauma produced by the airborne phase of employment, it is felt that serious consideration should be given to some type of rotation and rehabilitation of airborne troops who have participated in several airborne missions. A general policy, somewhat similar to that used by the Air Force for combat crews, would be of great value in relieving the situation that has been and continues to be built up in the minds of the airborne troops, that there is no goal for them, but only death, capture or being wounded as their only chance for relief.

At any rate, the pressures felt by infantryman and paratrooper alike, and the appeals for consideration, were not unknown at higher levels for, in October 1944, Headquarters, European theater, disseminated throughout the command a report from the Surgeon General's Office which stressed the following:

> The infantryman should be officially recognized as a special type of soldier with special privileges. Recognition of his importance should be reflected in the more assiduous application of priorities on supplies and equipment * * * and, when on leave, unrestricted

[18] See footnote 9, p. 383.

access to all recreation and entertainment enjoyed by base area troops. It is recognized that there are the competing claims of paratroopers, airborne infantry, * * * etc., but the infantryman is at present the least appropriately rewarded specialist in the Army.[19]

INVASION OF SOUTHERN FRANCE AND THE NETHERLANDS

Operation DRAGOON

On 15 August 1944, 45 days after the 82d and 101st Divisions rained down on Normandy, the Allies made their second aerial assault against France in one of the least publicized and most successful airborne strikes of the war, Operation DRAGOON. The invading force in this assault consisted of a number of parachute battalions, one regiment, one brigade, and a Special Service Force,[20] all combined to form the 1st Airborne Task Force under the command of Maj. Gen. Robert T. Frederick. The invasion force had Rome as its starting point and dropped in southern France.[21]

Operation MARKET

The 82d and the 101st Airborne Divisions returned to England upon completion of their missions in Normandy. Both divisions then entered a phase of reorganization, reequipping, and assimilation of replacements while assuming the role of strategic reserve for the Allied Expeditionary Forces. In August 1944, the Allied airborne organizations were organized into the First Allied Airborne Army under the command of Lt. Gen. Lewis H. Brereton. At the same time, the command of the 82d Airborne Division passed to General Gavin. Early in September, the 82d Division was alerted to participate in a projected airborne invasion of northeastern Belgium; but, before it could be executed, the need for such an operation had passed. Immediately, an operation was set up for the invasion of the Netherlands by Allied Airborne Army. On 17 September 1944, Operation MARKET was executed.

On 17 September 1944, the 82d Airborne Division dropped at Nijmegen, 50 miles behind enemy lines and, on 20 September, captured the Nijmegen Bridge, permitting relief of British paratroops by the British Second Army. The 101st Airborne Division, also, landed in the Netherlands on 17 September 1944, took Veghel, and held the bridge at Son. Sint Oedenrode and Eindhoven fell, after 2 days (17th and 18th) of sharp fighting. With a considerable amount of shifting back and forth, the enemy was

[19] Letter, Headquarters, European Theater of Operations, issued to commanders of all organizations, down to, and including regiments, subject: Prevention of Loss of Manpower From Psychiatric Disorders, 4 Oct. 1944, with inclosure thereto, "Extract From Report, Office of The Surgeon General—Prevention of Loss of Manpower From Psychiatric Disorders."

[20] These elements consisted of the 517th Parachute Infantry Regiment, the 1st Battalions of the 509th and 551st Parachute Infantry Regiments, the 550th Glider Infantry Battalion, the 460th and 463d Parachute Field Artillery Battalions, the 596th Airborne Engineer Battalion, the 602d Glider Pack Howitzer Battalion, the British 2d Independent Parachute Brigade, and the 1st Special Service Force (joint American-Canadian).

[21] See footnote 1, p. 375.

finally forced to withdraw from Opheusden, on 9 October. After extensive patrols, the division returned to France on 28 November for further training.

Reports from both divisions indicated that the airborne part of the invasion had gone off quite well.[22] The jump casualties sustained were only 1 percent of personnel jumping. The medical companies stated that the flight had been made without incident on the part of either of the two waves except for light to moderate "flak" encountered en route to the glider landing zone. No personnel were wounded while in the air, no loads were lost, and all equipment arrived in the glider landing zone in serviceable condition.[23]

Casualty Reports and Analyses

In the Netherlands, the 82d Airborne Division was in combat for 61 days. The neuropsychiatric casualties numbered 261. Of this number, 97 (37 percent) were returned to duty, and of these, 17 showed recurrence of symptoms; 164 were evacuated. The total number of casualties was 4,630, placing the percentage of neuropsychiatric cases at 5.6. These casualties were referred to as battle exhaustion cases, of mild to moderate degree, and over 50 percent of them came from the 325th Glider Infantry Regiment.[24] This influx was not reflected in the rate for wounded in action.

In connection with the report of the return to duty of 37 percent of neuropsychiatric cases, an interesting observation might be well worth consideration. In the airborne divisions, evacuation of casualties begins only as soon as ground unit contact is made. In Operation MARKET, the first evacuation for the 82d Airborne Division was available on D+3, at which time 200 casualties were evacuated. Because of enemy action, evacuation was interrupted from D+6 to D+10 and then resumed through the ground division contacted. Inasmuch as the circumstances of having to accumulate casualties at the clearing station in a circumscribed area with the enemy all around lends itself to a more or less wholesale evacuation when ground unit contact is made, it would appear that the D+6 to D+10 cutoff may have placed the division psychiatrist in the uncompromising position of having to treat his neuropsychiatric casualties on the spot and under fire. The figure of 38 percent returning to duty under such odds would seem to be indicative of a valiant effort on his part. It was the first such report on record, at least in the airborne annals.

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[22] The overall mission was only a limited success, for the 101st and 82d Airborne Divisions had to be held in the line much longer than initially planned. *See* MacDonald, Charles B.: The Siegfried Line Campaign. U.S. Army in World War II. European Theater of Operations. Washington: U.S. Government Printing Office, 1963, pp. 140–206.

[23] See footnote 14, p. 386.

[24] World War II Unit History—82d Medical Company (Airborne Division), Hq 82d Medical Company (A/B Division), Fort Bragg, N.C., by Charles Anistranski, Captain, MSC, Commanding, dated 28 November 1948.

The end of Operation MARKET was also the end of jump or glider campaigns for the 82d and 101st Airborne Divisions, although both of these divisions distinguished themselves in intensive ground action during the final 6 months of the fighting in Europe.

BATTLE OF THE BULGE

In the story of the sanguinary Battle of the Bulge, which began on 17 December 1944, lies the account of the famous defense of Bastogne in which the 101st Airborne Division maintained a circular perimeter of defense and, capably withstanding violent attacks, held out successfully until the 4th Armored Division reached it on 26 December 1944. After a 10-day rest period for recuperation, it reentered combat and continued until 30 January 1945.

At the same time, the 82d Airborne Division, entering combat on 19 December 1944 on the north salient of the Bulge, helped in stemming the Von Rundstedt offensive, proceeded to punch through the Siegfried Line in early February, and on 17 February, crossed the Roer River.

Finally, the 17th Airborne Division, under the command of General Miley, was introduced, for the first time, into combat. After taking over the defense of the Neuse River sector from Givet to Verdun on Christmas Day, the 17th moved to Neufchâteau, Belgium, then marched through the snow to Morhet (Belgium), relieving the 28th Infantry Division on 3 January 1945.

The 17th Airborne Division entered the Ardennes campaign during the period 4 to 9 January at the Battle of Dead Man's Ridge. On 18 January, the division relieved the 11th Armored Division at Houffalize, Belgium, pushed the enemy remnants from the Battle of the Bulge, and seized Wattermal and Espeler, Belgium, on 26 January. Turning toward Luxembourg, it cleared the enemy from the west bank of the Our River. The division probed the Siegfried Line and established a limited bridgehead near Daseburg before being relieved by the 6th Armored Division on 10 February 1945.

The three airborne divisions had been engaged in sustained moving ground action. The severe cold and heavy snows made it necessary to augment their supplies with blankets, shoepacks, and heavy clothing. Despite this, the largest single cause of nonbattle casualties was frostbite or trenchfoot. In the 82d Airborne Division alone, with a recorded total of 7,824 casualties in 61 days of combat, there were 2,900 battle casualties—307 (3.9 percent) neuropsychiatric cases and 1,428 frostbite casualties (this new type of casualty was diagnosed "trenchfoot," later changed to "frostbite" for those cases appearing in the rear area troops).

The 17th Airborne Division, having come up to the line on 25 December 1944—8 days later than the 82d—ran into severe obstacles and

heavy resistance. The clearing station was established at Longlier, Belgium, and the casualties were heavy in the first few days. Severe wound cases, which in many instances required amputation at the clearing station, could not be evacuated rapidly enough. The roads were few and the cold and snow a considerable hindrance. In the first week, a neuropsychiatric ward held eight patients for a period of 36 hours; four were returned to duty and four were evacuated. In the second week, the neuropsychiatric casualties had combined diagnoses of combat exhaustion and trenchfoot. Treatment and return to duty for any of these patients could not be accomplished since the trenchfoot required immediate evacuation. Throughout the remaining days, as the division turned to Luxembourg, the neuropsychiatric casualties were minimal. The 17th Airborne Division was in combat for 47 days. The total casualties amounted to 3,020; the neuropsychiatric casualties, 43 (1.4 percent).

The 101st Airborne Division was in combat for 43 days, not including a 10-day interruption for reorganization and reequipping. The 326th Airborne Medical Company opened its clearing station at 1100 hours, on 19 December 1944, near Herbaimont, Belgium. The medical company's commanding officer left the clearing station at 1700, accompanying some litter cases, to establish a route of evacuation. When he returned at 2130, the route had been rendered ineffective because of a demolished bridge. The convoy of ambulances was rerouted through Neufchâteau to Bastogne but was blocked by a double column of armor. Information gleaned at that point revealed that the clearing station had been attacked. After machine-gun strafing and setting afire of trucks, the division surgeon was compelled to surrender. The company lost (captured by the enemy) 11 officers and 119 enlisted men; the division surgeon's office lost three officers and two enlisted men; and Team No. 15 of the 3d Auxiliary Group, four officers and three enlisted men. The division was given second echelon medical service by the 429th Collecting Company and the 635th Clearing Company; then this road was cut off. All available medical officers in the surrounding groups were placed in one central location in the Belgium barracks at Bastogne. On 26 December, two surgical teams were flown into Bastogne by glider; they landed safely at 1600.

At this time, Bastogne was under almost constant aerial and artillery bombardment. Despite this, however, elements of the 4th Armored Division broke through to make contact with the 101st Airborne Division on the same day. It was then known that evacuation of casualties to the rear could be accomplished the next day.

On 27 December 1944, all casualties were evacuated from Bastogne directly to evacuation hospitals in the rear.

Very heavy fighting continued near Bastogne during the rest of December and January. On 17 January 1945, the 101st Airborne Division

moved to Drulingen in Alsace along the Moder River. On 31 January 1945, it was relieved and assembled in Mourmelon-le-Grand, France.

The number of days in combat totaled 43. The total casualties numbered 4,992 (1,283 for 18–31 December 1944, 3,709 for 1–31 January 1945), of which 102 were neuropsychiatric (84 for 18–31 December and 18 for 1–31 January).

Table 54 contains comparison figures of the casualty rates of the 17th, 82d, and 101st Airborne Divisions, including the time phases, and reflects the role played by each during the Battle of the Bulge.

TABLE 54.—*Admission rates for the 82d, 101st, and 17th Airborne Divisions, 9 December 1944–2 February 1945, by week*

[Rate expressed as number of admissions per week per 1,000 average strength]

Week ending—	82d		101st		17th	
	Neuropsychiatric rate	Wounded-in-action rate	Neuropsychiatric rate	Wounded-in-action rate	Neuropsychiatric rate	Wounded-in-action rate
1944						
December 15	0.1		0.3			
22	2.7	36.5	4.0	26.7		
29	4.5	44.2	5.7	24.6		0.8
1945						
January 5	5.0	65.3	4.9	32.6	0.9	40.1
12	3.1	40.7		46.0		
19	.3	2.5	5.7	92.8	0.9	40.5
26	.3	.8	.5	2.8	.7	31.8
February 2	3.9	53.4	1.1	5.6	.3	17.1

The 82d Airborne Division returned to combat on 4 April 1945, patrolling along the Rhine and securing the Köln area. On 30 April, the division moved across the Elbe into the Mecklenburg Plain, where, on 2 May 1945, the German *Twenty First Army* surrendered.

The 101st Airborne Division, during approximately the same period, moved to the Ruhr pocket on 31 March, patrolling and raiding in April. It wound up its final war days in Berchtesgaden, performing occupational duties until it moved down to Auxerre, France.

The 13th Airborne Division had arrived in the European theater on 10 February 1945, but was not committed to action as a whole, although it was alerted for several actions. It returned to the United States in August 1945 for redeployment to the Pacific.

The 17th Airborne Division made the final air invasion of the war when it went back into combat on 24 March 1945, in the Rhine Crossing (Operation VARSITY).

RHINE CROSSING (OPERATION VARSITY)

Operation VARSITY was the first airborne invasion over the Rhine into Germany itself. Taking off from marshaling areas in France, the 17th dropped into Westphalia in the vicinity of Wesel, Germany, on 24 March 1945. By the 25th, the division had secured bridges over the Issel River and had entrenched itself firmly along the Issel Canal.

The division surgeon's office went in by glider with the 224th Airborne Medical Company. The glider carrying the division surgeon, the division psychiatrist, the first sergeant, and the driver was struck by another glider at an altitude of approximately 250 feet, and the left wing was torn off. After smashing through a set of abandoned high tension wires and two fences, it pancaked to the edge of a large bomb crater. Since the glider was almost completely demolished, the enemy made no attempt to fire an 88 mm. shell into it, as they were doing with the others. All the passengers, the pilot, and the copilot sustained injuries but were not incapacitated. After a few moments in the bomb crater, while the paratroopers were flushing out scores of German prisoners, the division surgeon and division psychiatrist proceeded to the point originally selected for the clearing station. After elements of the 224th Medical Company were organized, the clearing station was put into operation and received the first casualties.

The division psychiatrist treated four patients during the first night, directly outside the tentage. Casualties were being admitted in large numbers, and no evacuation was possible. Within a few hours from the time it went into operation, the medical company had filled the clearing station wards and about a hundred patients were kept outside on the ground in rows of litters. The location, being less than 2 miles from the Rhine River, made the clearing station vulnerable to attack, and one German patrol which passed through in the night killed six enlisted men. The night was bright from bombardments along the Rhine, and tracer bullets from airpower filled the sky. This was undoubtedly an all-out effort on the part of the enemy.

The following day, a farmhouse was located about a hundred yards from the clearing station, and the division psychiatrist set up facilities for the neuropsychiatric casualties as well as for all ambulatory patients from the clearing station. As the heavy activity subsided, a few mild to moderate combat exhaustion cases were received from the perimeter of contact with the enemy. These responded well within 12 hours after rest, sedation, and nourishment. A few neuropsychiatric casualties had been treated at battalion aid stations and were not evacuated back to the clearing station. The general spirit around the clearing station was high, being maintained by the jovial air of those with relatively minor wounds who considered themselves the lucky ones as they contemplated evacuation to the Zone of Interior.

After capturing Münster on 2 April, the 17th Airborne Division was drawn back to the Ruhr pocket, relieving the 79th Infantry Division. It crossed the Rhine-Herne Canal on 6 April, and set up a secure bridgehead for the attack on Essen. The "Pittsburgh of the Ruhr" fell on 10 April, and the industrial cities of Mülheim and Duisburg were cleared in the continuing attack. Active contact with the enemy ceased on 18 April 1945. After occupational duties were completed in Essen, the division was returned to France.

The division was in combat for a total of 25 days. Casualties totaled 2,143; the neuropsychiatric casualties numbered 28, 1.3 percent, of the total casualties.

REVIEW OF 200 CASES IN 101ST AIRBORNE DIVISION

A review was made of 200 consecutive individual cases in the 101st Airborne Division during the period March 1944–December 1945.

Maj. Harry A. Rock, MC, had joined the 101st Airborne Division in January 1944, as division psychiatrist. He remained with the division until the end of December 1944. In February 1945, Maj. Alvin I. Kay, MC, joined the division, but in June 1945, because of the point system, he was eligible to return to the Zone of Interior. He was, therefore, transferred to the 17th Airborne Division which was returning to the Zone of Interior with high point men, and Maj. Arthur L. Hessin, MC, came in from the 17th to the 101st. Major Hessin remained with the division in Auxerre until it was inactivated there in December 1945. He then transferred, along with Lt. Col. Edward Sigerfoos, MC, the division surgeon, to the 82d Airborne Division, joining it as it was about to move to England. The 82d had completed occupational duties in Berlin and was being returned to Fort Bragg.

During the aforementioned period, the three division psychiatrists saw 200 consecutive cases in proportions which follow, illustrating the sudden decline through V–E·Day:

Major Rock, from March through December 1944, 72 percent; Major Kay, from February to June 1945, 19 percent; and Major Hessin, during the post-V–E Day period, from July to December 1945, only 9 percent.

The 200 cases were classified by diagnosis as follows:

	Number		*Number*
Anxiety reaction	49	Asocial personality	2
Inadequate personality	45	Schizoid personality	2
Mental deficiency	33	Reactive depression	2
Conversion hysteria	10	Psychopathic person	1
Schizophrenia	9	Simple drunkenness	2
Emotional instability	5	Pathological mendacity	1
Chronic alcoholism	5	Manic depressive (DEP)	1
Neurasthenia	3	Homosexuality	1
Epilepsy	2	No disease	23
Psychoneurosis, mixed	4		

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Unfortunately, no correlation can be made between this breakdown of 200 cases and the combat experiences of the airborne divisions.

Observations on the number of cases for each diagnosis follow.

1. Schizophrenia appears to occupy its usual relationship to the other conditions, and seems to agree with the constant figure that is reported in both wartime and peacetime.

2. The cases of mental deficiency are not singled out for any special duties as they progress from the induction line to the frontline.

3. The inadequate personalities are not uncommon in the airborne, for brief stays. This particular group has had no combat experience, and a parachute school was not in operation at this time to weed them out effectively.

4. The anxiety reactions derived from the early phase of this study period when fighting was still going on.

5. Some of the character and behavior disorders would probably not have been recorded except that they were appearing frequently in the cases referred for pretrial evaluations.

COMMENTS

A quick recapitulation would begin with the "type" of individual who seemed to be best suited for airborne training and eventual combat. The intense nature of paratrooper and glider training follows, with a recollection of the daring and aggressive, bold and fast, "better than" and "tougher than" attitude which was instilled so that the individual and his comrades would become notorious as "the devils in baggy pants." With the element of surprise, he could overwhelm enemies as he dropped into combat, and in hair trigger, split second action would, for the most part, emerge a victor in a brief, deadly struggle for survival.

If any sizable group of individuals such as these were placed in a rest area, it would hardly be expected that, after goading one another into intensive action in combat by their closely knit "buddy" and "leader" system, they could be persuaded to restrain their impulsive activity to a totally acceptable form of behavior in either Allied or occupied territory. This would be particularly so if there was an indication that reentry into combat was imminent. These very characteristics and traits made them excellent fighters in combat, and at any other time, they were capable of leaving profound impressions on any community through which they happened to pass.

It can, therefore, be reasonably understood that in the rest periods the division psychiatrist was not idle. A considerable amount of his time was spent in the courtroom. Pretrial examinations were common. On most of these, the written findings resulting in neuropsychiatric clearance were acceptable without the necessity of having the psychiatrist appear to tes-

tify. On more serious offenses, such as assault and robbery, rape, and murder, intensive examinations and careful preparations were essential. The ability to readjust quickly and exercise a moderate amount of prudence from the trigger-happy killer in combat was often too difficult for some who bordered on psychopathy. In groups, these paratroopers could, and did, arouse community-wide animosity. In the town of Auxerre, France, shortly after V–E Day, the local newspaper carried the headline "Germany fraternization: Auxerre occupation." Apparently, when given enough time, these soldiers were able, on an individual basis, to take advantage of disarming personalities and youthfulness and effect a more conciliatory verbal agreement.

Also, in the rest phase, new replacements would require evaluation because they had volunteered for parachute duty, and care would have to be exercised to insure that each volunteer was not merely avoiding some problem of adjustment in his former unit.

The more advantageous aspects were the factors or elements that instilled group cohesion. This view was recognized and supported at a later date by the following:

> An integral part of the situational conflict of war is the sustaining power of the group. This is seldom crystallized by the patient since it involves feeling tones, not easily verbalized. Yet it is intimately bound up with stress, because the failure of unit motivation or leadership to support the individual may precipitate an emotional breakdown. The removal of the protective mechanism figuratively and literally leaves the soldier in a vulnerable position to withstand external stress.[25]

In the developmental and training stages, the airborne method, with its rigorous schooling and disciplinary control, was an excellent example of the following view:

> Group identification begins in training. Here, the soldier not only gains competence and confidence in the use of his weapons but also learns the value of teamwork in battle—the foundation for the protective functioning of the unit.
>
> Even the timid soldier comes to feel secure by being in a powerful group and often assumes the aggressive attitude of the organization. * * * The combat unit develops its own special characteristics, which are quickly adopted by the new replacement; after a short time, he talks and acts like any veteran member.[26]

From these reports and analyses, covering the airborne phase in World War II, there can be little doubt that the constitutional and emotional factors of the American airborne soldier, when subjected to close scrutiny, have made a substantial contribution to the better understanding of our needs in the study of stress and tension.

The excellence of the U.S. Army airborne soldier has been aptly described by Waddell:

> From the histories, the personal diaries, the unofficial critiques, and the afteraction reports, sprang repeated proof of this: The airborne soldier had what it takes to fight a

[25] Symposium on Military Medicine in the Far East Command, September 1951, p. 106.
[26] *Ibid.*, p. 114.

war. He was an infantryman or artilleryman or engineer PLUS. Rigorous ground training and fanatical devotion to physical fitness, coupled with an esprit de corps unequaled in Army history, made him the toughest soldier ever sent in combat by the United States Army.[27]

[27] Waddell, L. S.: The Airborne Story, Part II. The Pegasus (published by the Fairchild Engine and Airplane Corp. as a service toward greater understanding of the military, social, and economic effects of aviation), July 1954, p. 6.

CHAPTER XI

Other Neuropsychiatric Services

Lloyd J. Thompson, M.D.

REINFORCEMENT DEPOTS

One of the important factors in the prevention of neuropsychiatric disabilities was proper assignment. This applied to any hospitalized soldier who was returning to duty perhaps with a change in assignment; it was extremely important for the neuropsychiatric patient who was returning for duty. Therefore, Lt. Col. (later Col.) Lloyd J. Thompson, MC, Senior Consultant in Neuropsychiatry, ETOUSA (European Theater of Operations, U.S. Army), on 3 October 1942, visited the 2d Replacement Depot [1] in Northern Ireland and, shortly thereafter, the 10th Replacement Depot near Lichfield, England, the channel through which all patients were returned to duty from the detachment of patients in general hospitals in England.

As a result of these visits, Colonel Thompson recommended: "Replacement depots—whether or not they are combined with a convalescent camp—should have consultation service from a psychiatrist. Under such an arrangement many men can be studied, replaced, or disposed of without spending several weeks in hospital." The TO (table of organization) of the replacement depots did not provide for a neuropsychiatrist; nor could the few general-duty medical officers assigned to the depots be replaced by a neuropsychiatrist, because of the large requirement for routine medical work.

10th Replacement Depot

Early in April 1943, when the 250-bed 33d Station Hospital arrived to serve the 10th Replacement Depot,[2] Capt. Daniel C. Dawes, MC, a psychiatrist, was assigned to this hospital although there was no specific TO vacancy for such an appointment. Captain Dawes organized and carried on neuropsychiatric services in the 10th Replacement Depot until 14 December 1943, when he was transferred to a general hospital. The neuropsychiatric services were resumed promptly by Capt. (later Maj.) Benjamin Cohen, MC, a psychiatrist, assigned to the depot on detached service from the 312th Station Hospital (NP), which had just opened within 10 miles from the replacement depot. (Later, Captain Cohen was assigned as a general medical

[1] In 1944, the term "Reinforcement" was substituted for "Replacement."

[2] The material on the 10th and 19th Replacement Depots presented in this chapter was furnished by Maj. Benjamin Cohen, MC, who was the pioneer and leader in this service.

officer to the medical unit serving the depot. In August 1944, he was transferred to the newly reorganized 130th General Hospital and received a well-deserved promotion.)

In January 1944, Maj. (later Lt. Col.) Frederick Lemere, MC, was assigned to the 10th Replacement Depot, on detached service from the 50th General Hospital, and served until March 1944. He was followed by Maj. Henry E. Andren, MC, who served from April 1944 to April 1945, on detached service from the 312th Station Hospital (NP). By August 1944, two full-time psychiatrists were needed, and Capt. Michael B. Greenfield, MC, also from the 312th, was assigned to the medical service of the depot, where he remained until the end of hostilities.

The following factors made the neuropsychiatric service necessary:

1. The large number of casuals and hospital returnees who complained about their physical conditions in the absence of demonstrable organic disease.
2. The numerous dischargees arriving from disciplinary training centers in the United States and the United Kingdom who required careful evaluation before assignment.
3. The psychiatric pleas presented by men awaiting trial or serving sentences in the depot guardhouse.
4. The neuropsychiatric needs of the neighboring 33d Station Hospital, which served the casuals and cadre of the depot, as well as other nearby organizations.
5. The occasional problems of maladjustment in cadre personnel.
6. The additional information required by the assignment section for the placement of hospital dischargees with neuropsychiatric diagnoses.

Like other processing medical officers, a depot psychiatrist could exercise an important preventive function. By detecting personality faults and neuropsychiatric illnesses, and by hospitalizing or reclassifying the unfit, he could minimize the assignment of unsatisfactory personnel to combat commands. Usually, it was not difficult to recognize, from among those who had a history of intolerance for minor stresses, or of repeated hospitalization, which soldiers were undependable and so apt to jeopardize combat undertakings. On the other hand, in keeping with directives, the psychiatrist's duty was to distinguish the unwilling from those who were unfit for reasons beyond their control.

In 1943, the opening of the 312th Station Hospital (NP) nearby at Shugborough Park, made possible the study, special treatment, and rehabilitation of patients with psychoneurosis, posttraumatic syndrome, and other remediable neuropsychiatric conditions. After D-day, the depot transferred large numbers of patients directly to the 312th; most of them improved sufficiently to permit subsequent return to some form of duty in the theater. A followup study on 500 of these patients, 7 months later, showed that eight out of 10 were still on duty in the theater.

A survey of two periods—from 15 April to 30 November 1943 and from 14 December 1943 to 31 March 1944—demonstrates the mounting volume of neuropsychiatric consultations in the processing section of the depot (table 55). The neuropsychiatric caseload increased in the second period; also, with little change in other respects, the incidence of psychoneurosis increased disproportionately.

A more detailed analysis of the 1,041 neuropsychiatric consultations, for the period from 14 December 1943 to 31 March 1944, indicating disposition with reference to diagnosis, is presented in table 56. This table covers only part of the neuropsychiatric cases handled by the depot and includes principally cases that represented problems in classification.

Only 23 percent of the cases were considered free of neuropsychiatric disease; the few patients in this category who received limited assignment had other disabilities.

"Psychoneurosis" statistics, which logically should be combined with those "inapt for combat duty," represented the largest number. Of the 542 cases in these two categories, only 25 were hospitalized after examination at the depot; most of the others were assigned to noncombat duty.

Mental deficiency accounted for 9 percent of the consultations. Only four of 89 patients required hospitalization, most of whom were considered fit only for limited duty because of their instability and defective intelligence.

Neurological disease (such as epilepsy, head or nerve injury, migraine, and narcolepsy) accounted for 10 percent of the cases examined. All epileptics were hospitalized.

Psychosis cases constituted only 1 percent; all, of course, were sent to the hospital.

TABLE 55.—*Volume of neuropsychiatric consultations, 10th Reinforcement Depot, 15 April–30 November 1943, and 14 December 1943–31 March 1944, by diagnosis*

Diagnosis	15 April–30 November 1943		14 December 1943–31 March 1944	
	Number of cases	Percent	Number of cases	Percent
No neuropsychiatric disease	349	45	241	23
Psychoneurosis	205	27	406	39
No mental disease, constitutionally inapt for combat duty [1]	0		136	13
Mental deficiency	70	9	89	9
Neurological disease	55	7	108	10
Psychosis	9	1	12	1
Constitutional psychopathic state	37	5	49	5
Miscellaneous conditions	45	6	0	0
Total	770	100	1,041	100

[1] A special diagnostic term used by the 312th Station Hospital (NP) in the period before D-day to describe certain soldiers who showed neurotic reactions under stress and so were considered unfit for combat.

TABLE 56.—*Neuropsychiatric consultations (1,041), 10th Reinforcement Depot, 14 December 1943–31 March 1944, by diagnosis and disposition*

Diagnosis	Total cases (number)	Disposition			Percent of total consultations
		General assignment	Limited assignment	Hospitalized	
No neuropsychiatric disease	241	225	16	0	23
Psychoneurosis:					
Anxiety state	203	18	173	12	
Conversion hysteria	91	10	74	7	
Anxiety hysteria	9	0	9	0	
Hypochondriasis	50	5	44	1	
Neurasthenia	6	0	5	1	
Psychasthenia	1	0	1	0	
Reactive depression	9	3	5	1	
Mixed types	37	2	32	3	
Total	406	38	343	25	39
No disease, constitutionally inapt for combat duty [1]	136	0	136	0	13
Mental deficiency:					
Mental age—					
10 to 11 years	33	4	29	0	
9 to 10 years	42	3	37	2	
8 to 9 years	10	0	10	0	
below 8 years	4	0	2	2	
Total	89	7	78	4	9
Neurological disease:					
Epilepsy	5	0	0	5	
Posttraumatic cerebral syndrome	7	3	3	1	
Migraine	6	0	6	0	
Narcolepsy	2	0	1	1	
Enuresis	12	9	1	2	
Other types	76	17	50	9	
Total	108	29	61	18	10
Psychosis:					
Dementia praecox	5	0	0	5	
Other types	7	0	0	7	
Total	12	0	0	12	1
Constitutional psychopathic states:					
Emotional instability	19	5	13	1	
Sexual psychopathy	1	0	0	1	
Inadequate personality	26	6	18	2	
Type, unqualified	3	0	3	0	
Total	49	11	34	4	5
Grand total	1,041	310	668	63	100
Percent of total		30	64	6	

[1] A special diagnostic term used by the 312th Station Hospital (NP) in the period before D-day to describe certain soldiers who showed neurotic reactions under stress and so were considered unfit for combat.

Constitutional psychopathic states (5 percent of the consultations) included principally those who were "inadequate" and "emotionally unstable," in that order of prominence. Most of these cases were managed by reassignment.

Summarizing dispositions in this 15-week period, of the 1,041 cases referred for neuropsychiatric consultation, 30 percent were found fit for general assignment, 64 percent for limited assignment, and 6 percent had to be hospitalized.

In the same period, 41 cases from nearby units other than the 10th Reinforcement Depot were seen in consultation at the 33d Station Hospital. Of that number, seven (17 percent) were recommended for return to general assignment; 18 (44 percent) for limited assignment; and 16 (39 percent) for transfer to a neuropsychiatric hospital (table 57).

Most significantly, the incidence of psychoneurosis in the consultations referred by the station hospital staff was about the same as in the cases referred by depot processing physicians. An increased proportion of psychosis was likely to be found in neuropsychiatric consultations at a hospital serving other organizations as well as the depot.

A third phase of function for the psychiatrist concerned the depot guardhouse. During the period of 15 weeks covered by the survey, 51 prisoners were examined (table 58), principally on the request of the depot investigation officer. Of these, 17 (33 percent) were found to be in need of neuropsychiatric treatment, seven (14 percent) of whom were psychotic.

Examination of prisoners.—Before the interview, the neuropsychiatrist examined the prisoner's service record and classification record (WD AGO Form 20), noting such personal data supplied at induction as date of birth, education, civilian occupation, income, and name and address of nearest relative. Dates of reduction in grade were recorded, as were dates of previous

TABLE 57.—*Neuropsychiatric consultations, 33d Station Hospital, 14 December 1943–31 March 1944, by diagnosis and recommended disposition*

Diagnosis	Total cases (number)	Recommended disposition			Percent of total consultations
		General assignment	Limited assignment	Transfer to NP hospital	
No neuropsychiatric disease	6	5	1	0	15
Psychoneurosis	21	0	13	8	51
Mental deficiency	2	0	1	1	5
Neurological disease	3	1	0	2	7
Psychosis	4	0	0	4	10
Constitutional psychopathic state	5	1	3	1	12
Total	41	7	18	16	100

TABLE 58.—*Neuropsychiatric consultations at the guardhouse, 10th Reinforcement Depot, 14 December 1943–31 March 1944, by diagnosis and findings*

Diagnosis	Total cases (number)	Findings		Percent of total consultations
		Mentally responsible	Needs NP hospitalization	
No neuropsychiatric disease	28	28	0	55
Psychoneurosis	2	1	1	4
Mental deficiency	3	1	2	6
Neurological disease	1	1	0	2
Constitutional psychopathic states	6	1	5	11
Emotional instability	(2)	0	(2)	
Inadequate personality	(1)	0	(1)	
Type unqualified	(3)	(1)	(2)	
Alcoholism, chronic	4	2	2	8
Psychosis	7	0	7	14
Total	51	34	17	100
Percent of total		67	33	

NOTE.—Figures in parentheses are subtotals.

AWOL (absent without leave) confinement, time lost under Article of War 107, dates and reasons for courts-martial, and date of arrival overseas.

When the prisoner arrived for examination, the original sources of information were kept out of sight. The topics previously referred to were checked by casual questioning, as a test for memory, and no reference was made to the soldier's current difficulty until the close of his interview.

Each earlier AWOL offense was considered separately with reference to the soldier's reasons for such action, his experiences during absence, and the why and how of his return. Most of these men were found to be creatures of habit. If a soldier did not start a previous unauthorized absence until he had been paid or until he accumulated money by gambling, his last such absence usually started the same way; if drinking and women figured in his previous absences, he tended to continue true to form; and if in the past he waited until his funds were exhausted before returning, his unofficial leave often again terminated for the same reason.

Thus, step by step, knowledge was acquired of the man and his habits, and it was possible to learn many details of his last offense before the topic had been reached.

When the immediate problem was absence without leave, the prisoner was asked specifically about the date and time of departure, the amount of money in his possession, the type of transportation used, his destination, and time of arrival. If he had gone to a theater during this time, he was asked to name the place, the title of the show, the names of the stars, and

so forth. In this way, little details were picked up, testing the effectiveness of the soldier's memory for the AWOL period.

No reference was made to his mental health until this earlier material was covered; then, he was asked if he considered himself normal, and his mental complaints were considered critically.

When prisoners were so examined, they often realized the uselessness of pretending amnesia after they had inadvertently demonstrated the effectiveness of their memory.

Developments after D-day.—After D-day, a striking change occurred. The neuropsychiatric consultations increased considerably, and many patients had to be hospitalized. In July 1944, medical officers at the depot referred 1,130 cases to the psychiatrists for examination and disposition. The following dispositions were made:

Disposition	*Number*	*Percent*
Fit for general assignment	217	19
Fit for limited assignment	508	45
Held for minor treatment	10	1
Hospitalized	395	35
Total	1,130	100

Those hospitalized were individuals with combat exhaustion symptomatology not previously treated, or insufficiently treated, and chronically unstable persons, whose symptoms had become exacerbated by combat experiences.

Of the 395 cases sent to the hospital, 35 percent had been identified previously as neuropsychiatric; 41 percent had received treatment for wounds or physical disease; and in 24 percent, hospital abstracts had not been provided, so there was no knowledge of their hospital diagnoses. From D-day to 2 July 1944, 114 patients who had been returned to the 10th Replacement Depot from 27 general hospitals for reassignment to duty had been found unable to perform military duty by reasons of neurosis. Over 50 percent of these patients had not been seen by psychiatrists in the general hospitals. The causes of this situation were believed to be:

1. Lack of recognition of the condition by general medical officers.
2. Overenthusiasm and lack of experience in treatment of the syndrome by psychiatrists.
3. Urgency for evacuation of hospital beds.

Special medical facilities were provided for the reception and treatment of the rehospitalized cases, particularly at the 312th Station Hospital (NP) which received 90 percent of the neuropsychiatric cases hospitalized by the depot in July. Officers were sent to the 182d General Hospital and psychotic patients to the 96th General Hospital (NP).

The extent of rehospitalization led to repeated inspections from many

TABLE 59.—*Dispositions of neuropsychiatric consultations, 10th Reinforcement Depot, August 1944–February 1945, by month*

Month	Total cases (number)	General assignment	Limited assignment		Held for minor treatment	Hospitalized	
			Above MR 1–9	Below MR 1–9		Number	Percent
August	1,700	118	123	1,076	5	378	22.2
September	1,489	281	290	673	21	224	15.0
October	1,441	258	279	689	28	187	13.0
November	1,240	290	312	557	13	68	5.5
December	1,143	283	232	525	17	86	7.5
January	1,251	428	192	554	17	60	4.8
February	1,016	279	210	438	10	79	7.8

sources; however, the specialized hospitals receiving the patients confirmed their need for treatment.

Table 59 covers dispositions on consultations referred to depot psychiatrists from August 1944 to February 1945. The most significant point in this table is the definite fall in the numbers of those who had to be rehospitalized. This can be attributed partly to the fact that depot processing records made it possible for authorities to determine which hospitals contributed the greatest number of men not adequately rehabilitated, and so correction was possible.

19th Reinforcement Depot

After the Continent had been invaded and general hospitals had been opened on the "far shore," the Ground Forces Reinforcement Command established reinforcement depots on the Continent. The 19th Reinforcement Depot at Étampes, France, had functions similar to those of the 10th Reinforcement Depot in the United Kingdom. It was agreed in the autumn of 1944 that this depot would have neuropsychiatric assistance as soon as possible, but it was not until late in March 1945 that Major Cohen could leave the 130th General Hospital for detached service at the 19th Reinforcement Depot.

At the 19th Reinforcement Depot, patients for neuropsychiatric consultations were provided from the following four sources:

1. The depot medical processing section.
2. The battalion and company dispensaries.
3. The 302d Station Hospital.
4. The 19th Reinforcement Depot stockade.

A close resemblance in the diagnostic findings of neuropsychiatric consultations from the depot processing section, the battalion and company dispensaries, and from the 302d Station Hospital is evident in table 60. Noteworthy was the high incidence of psychoneurosis (63.5–76.2 percent).

TABLE 60.—*Comparison of findings in 1,337 neuropsychiatric consultations from various sources, 19th Reinforcement Depot, April–June 1945, inclusive, by diagnosis*

Diagnosis	Percentage			
	Depot processing section	Battalion and company dispensaries	302d Station Hospital	19th Reinforcement Depot Stockade
No neuropsychiatric disease	12.1	6.6	13.5	36.4
No disease, administrative admission for neuropsychiatric observation	.3	2.7	----	4.6
Neurological disease	1.4	1.1	3.9	----
Psychoneurosis	74.4	76.2	63.5	13.6
Primary behavior disorders	1.0	1.6	1.9	----
Constitutional psychopathic states	6.7	7.9	5.7	13.6
Psychosis	.6	2.0	1.9	4.5
Alcoholism	.5	.3	----	9.1
Mental deficiency	2.8	1.6	9.6	18.2
Homosexuality	.2	----	----	----
Total number of cases examined from each source	898	365	52	22
Percent of total consultations	67.2	27.3	3.9	1.6

Despite the small total number of cases seen from the stockade, several differences are significant. A much higher incidence occurred of "no neuropsychiatric disease," "emotional instability," "alcoholism," "psychosis," and "mental deficiency." This suggests which psychiatric types are most apt to commit breaches of military discipline; also, that stockade cases are more apt to offer neuropsychiatric complaints for which a basis cannot be found. On the other hand, the low incidence of "psychoneurosis" from that source confirms a previous impression that the average soldier with this diagnosis tends to abide by military regulations. "Primary behavior disorders," despite the suggestive title, had nothing to do with misbehavior and described only a special group of maladjusted and unstable individuals who were helped by change of assignment from combatant to noncombatant duty. None of the cases from the stockade was so labeled.

At the 19th Reinforcement Depot in April, May, and June 1945, psychoneurosis was the most important statistical entity, accounting for 74.4 percent of the 898 neuropsychiatric consultations from the Depot Processing Section, and 76.2 percent of the 365 cases from battalion and company dispensaries. Special neuropsychiatric treatment facilities were provided at the 191st General Hospital. To eliminate the causes for rehospitalization, hospital center commanders maintained close contact with the depot, cooperating in every possible way, with the following favorable results:[3]

[3] The marked decline in June could have resulted from the cessation of hostilities.—A. J. G.

Month	Cases examined	Percent rehospitalized
April	369	42
May	324	37
June	205	12

The Ground Forces Reinforcement Command, with the services of a few psychiatrists, attempted to insure the supply of only mentally and emotionally qualified soldiers to combat units, the most advantageous use of those who were unstable, the timely rehabilitation of those still capable of improvement, and the elimination of the grossly unfit from the military service.

Colonel Thompson visited the 19th Reinforcement Depot on 23 January 1945. The summary and recommendations extracted from his detailed report [4] are as follows:

a. The number of men now readmitted to hospital from the depot is quite small, being less than 0.5 percent. General statistics for the time from 23 June to 15 December 1944 * * * showed an overall rate of return to hospital of approximately 2 percent. It is the N.P. casualties that increase this percentage (6.5 percent of N.P. casualties were readmitted to hospital over the above time). This rate for N.P.'s was much higher during the summer months and early fall, but now is lower than the average of 6.5 percent. Again, it can be said that in these conditions, where decisions are difficult, if some error did not occur in this direction it would mean that the hospitals were probably sending to the ZI some patients that could be returned to duty. The practice of notifying the responsible hospital should continue and a list of the patients readmitted to hospital should be furnished the Division of Professional Services.

b. It appears that there is a large morale factor in the work of the reinforcement depot. The majority of the reinforcement troops coming from hospital have some measure of reluctance about going back to combat and sometimes of going to limited assignment. It is known that the previously wounded man and the "replacement" become N.P. casualties more quickly than the man who is a regular with his unit. It has been said, and probably rightly so, that poor morale stems from attitudes in the ZI. Many other factors have been enumerated. Soldiers come from the great comforts of hospitals (unless they have been through a rehabilitation unit) to living conditions that are not too different from the front lines. Often they have forgotten about hardships; have forgotten the regimentation; and even forgotten some of their skills, to the point where their confidence is lessened. It is not to be wondered at that some cling to symptoms either consciously or unconsciously, to prolong certain comforts and postpone danger.

c. Much is being done in this reinforcement depot to create and maintain an atmosphere conducive to good morale. Information and Education should play an increasingly important part in this, both in its work with depot personnel and with the reinforcement troops. A psychiatrist will be on duty in this depot within a few weeks. Plans are being formulated by Colonel Durst and the writer to have a "mental hygiene clinic" in the reinforcement depots. A separate report is being submitted on this subject. All of these activities are directed primarily toward a positive or constructive morale program.

[4] Report, Senior Consultant in Psychiatry to Chief, Professional Services, ETOUSA, 31 Jan. 1945, subject: Report on the 19th Reinforcement Depot.

Later, a conference with the Surgeon, Ground Forces Reinforcement Command, disclosed that all depots desired neuropsychiatric services, and it was agreed that definite TOE provisions should be made.

In a memorandum [5] of 29 January 1945, Colonel Thompson mentioned the use of mental hygiene clinics in replacement training centers in the Zone of Interior and the necessity of removing psychiatrists from hospitals in this theater and placing them in the reinforcement depots to perform a similar function. With the influx of noncombat soldiers from the communications zone as replacements for combat soldiers, the reinforcement depots were expected to become retraining centers. It was also anticipated that such a radical change of duty would precipitate personality problems requiring neuropsychiatric attention. It was recommended that a mental hygiene service be made available to all reinforcement depots and that adequate personnel be assigned. These recommendations were acceptable to the Ground Forces Reinforcement Command, and the Commanding General, Maj. Gen. Albert E. Brown, requested the appointment of four examining boards, patterned after mental hygiene clinics operating at the replacement training centers in the Zone of Interior.[6]

The Chief Surgeon, however, did not concur in the recommendations, taking the position that such work pertained to basic training and "we cannot embark on a program of basic training in a theater of operations." [7] The same communication bore this opinion of the Chief, Personnel Division: "* * * should psychiatrists be assigned to G.F.R. Depots, manner of utilization would result in their constituting a nuisance to this service."

That there was some misunderstanding of the function of the neuropsychiatrist in reinforcement depots was obvious. Colonel Thompson attempted to clarify the situation [8] and resubmitted an earlier report of his visit and inspection of the 19th Reinforcement Depot,[9] together with extracts from a report of the visit of Col. (later Brig. Gen.) William C. Menninger, MC, Chief Consultant in Neuropsychiatry, Surgeon General's Office, to the replacement depots,[10] and a copy of a survey paper submitted by Major Cohen.[11] The problem was never resolved because V–E Day occurred a month later.

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[5] Memorandum, Senior Consultant in Psychiatry to Chief, Professional Services, ETOUSA, 29 Jan. 1945, subject: The Use of Psychiatrists in Reinforcement Depots.

[6] Letter, Commanding General, Ground Forces Reinforcement Command, ETOUSA, to Deputy Theater Commander, ETOUSA, 1 Mar. 1945, subject: Combat Exhaustion Hospital Returnees.

[7] Informal Routing Slip, Deputy Chief Surgeon (O) to Chief Surgeon, ETOUSA, undated.

[8] Informal Routing Slip, Senior Consultant in Neuropsychiatry to Chief Surgeon, ETOUSA, through Chief, Professional Services, ETOUSA, 2 Apr. 1945, subject: Psychiatrists in Reinforcement Depots.

[9] See footnote 3, p. 407.

[10] Report, Director, Neuropsychiatry Consultants Division, to The Surgeon General, 13 Nov. 1944, subject: Report of Visit of Col. William C. Menninger, MC, to Installations in the European Theater of Operations, 7 September to 24 October 1944.

[11] Cohen, B.: The Early Recognition of Psychoneurosis Due to Combat—A Step in the Prevention of a Post-War Psychiatric Problem. [Professional paper.]

DISCIPLINARY TRAINING CENTERS

Colonel Thompson had been apprised of the need for neuropsychiatric supervision in the disciplinary centers by the experience of the British, by the experience of Capt. (later Lt. Col.) Frederick R. Hanson, MC, in Northern Ireland, and by a special request from the commanding officer of the disciplinary training center. At the 5 February 1943 meeting of the Chief Surgeon's consultants, Colonel Thompson announced that a study of Disciplinary Training Center No. 1 at Shepton Mallet had been started by Maj. (later Lt. Col.) Jackson M. Thomas, MC, on part-time detached service from the 36th Station Hospital (NP). Lt. Col. (later Col.) Ernest H. Parsons, MC, the commanding officer of this hospital, assisted in the study.

This subject aroused the interest of the Chief Surgeon, who noted that less than 1 percent of offenders were restored to full duty from the disciplinary barracks. He asked that the staff consider detailing a psychiatrist permanently to the disciplinary training center.

On 22 February 1943, the commanding officer of the Southern Base Section asked authorization "to appoint a board of officers from the staff of the 36th Station Hospital, to conduct psychologic and psychiatric examinations of prisoners as the need arises." [12] This service was supplied, augmenting the study that was already underway.

On 26 June 1943, the senior consultant in neuropsychiatry reported to the Chief Surgeon that Captain Cohen, who had been on duty at Disciplinary Training Center No. 1 for more than 2 months, had demonstrated the need for full-time psychiatric service. The following recommendations were made:

1. That a psychiatrist, a clinical psychologist, and an enlisted man qualified in secretarial work be assigned to Disciplinary Training Center No. 1.
2. That the above personnel be included in a TO for Disciplinary Training Center No. 1.[13]

One year later in June 1944, at the request of the commanding officer of the center, a second psychiatrist was assigned on detached service; a request for a psychiatrist at another disciplinary training center was met in the same way.

By the end of 1944, the stockades in the various base sections had grown in number as well as census. Although psychiatric services had been well accepted by the commanding officers of disciplinary training centers, by this time it was no longer feasible to further deplete hospitals of much needed trained psychiatrists.

Thus, in January 1945, it was necessary to confer with the theater provost marshal and submit further recommendations for permanent modi-

[12] Letter, Commanding Officer, Headquarters, Southern Base Section, Services of Supply, ETOUSA, to Commanding General, SOS, ETOUSA, 22 Feb. 1943, subject: Psychologic and Psychiatric Examinations of Prisoners.

[13] Letter, Senior Consultant in Neuropsychiatry to Chief Surgeon, ETOUSA, 26 June 1943, subject: Psychiatric Service at Disciplinary Training Center No. 1.

fication of the table of organization of a disciplinary training center. The changes recommended were approved, but before specialized personnel could be located, the war was terminated.

If measured in terms of men returned to useful duty, the results of neuropsychiatric services at disciplinary centers were not gratifying. Neuropsychiatrists in the theater had had no experience or training in the rehabilitation of prisoners, yet those who were assigned, by using much initiative and imagination, performed very well in related areas. Pertinent case records were provided on all prisoners. Expert opinion was developed in the medicolegal aspects of disciplinary procedures; a more just appraisal of individual prisoners evolved, and the scope of corrective measures broadened; special studies developed techniques in dealing with the military offender; and personality factors were uncovered which assisted in identifying certain types in the units. It must be emphasized that the psychiatrists in the disciplinary centers worked in difficult physical surroundings and that trained ancillary personnel were very limited.

RECOVERY CENTERS

An unusual, interesting, and successful organization called the "Recovery Center" came into being in the European theater at the suggestion and insistence of the Chief Surgeon. This was planned to be a special training company for the "unwilling soldier" and other misfits who were poor prospects for psychiatric rehabilitation.

An administrative memorandum,[14] issued on 4 September 1944, gave the purpose in the following terms:

> The mission of this installation is to give special training under strict military discipline to enlisted men who, because of personality or intellectual deviations, have not fitted into the combat or service organizations in this theater. Trainees include those in whom no definite mental disorder exists, but who manifest poor adjustment through incorrigibility, repeated physical complaints without demonstrable basis, unwillingness to work, or inaptitude for any special work. The object is to prepare these men through special training for assignment to labor units or similar organizations of any elements of the army in ETOUSA.

The initiating memorandum, written by the Chief Surgeon, was dated 25 March 1943. Colonel Thompson apparently did not appreciate its full meaning until June 1943. Then, in reply to a request for information, he gave the following estimates and suggestions under date of 28 June 1943:

> At the present time there are approximately 100 enlisted men at the 36th Station Hospital (NP) who could be assigned to the proposed special training company. The estimate of the number of enlisted men per month who will need such training is 40. This is based on the admission rates for the past 5 months (including June). This figure will increase according to the number of troops in this theater and may vary somewhat depending on the selection of enlisted men sent to this theater.

[14] Administrative Memorandum No. 139, Office of the Chief Surgeon, ETOUSA, 4 Sept. 1944, subject: Recovery Center No. 1.

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The minimum personnel would be essentially that of an infantry company for commissioned and noncommissioned officers. Grades of private would be filled almost entirely by trainees and in time a few trainees should be able to take regularly assigned positions in the company, etc.[15]

On the following day, Colonel Thompson submitted another memorandum,[16] in which he reiterated the Chief Surgeon's opinion that "the cadre should be selected with great care." He suggested that the commanding officer should be an experienced line officer with unusual ability to lead, handle, and understand men of various types. Experience in rehabilitation work or in selection procedures was considered an asset, and civilian experience working with groups of men, or in personnel work, was desirable. The other commissioned officers and sergeants were to be chosen on a similar basis, with special emphasis on qualities of leadership and understanding of problem men. One junior officer with classification experience and two noncommissioned officers with training in testing and classification procedures were also recommended.

On 24 June 1943, Colonel Thompson answered several specific questions as follows: [17]

Question *a*. Can these men be rehabilitated?

It is not anticipated that *all* will be rehabilitated, but with the proper program enough should be returned to some type of labor duty to justify the project. In the basic communication of the Chief Surgeon dated 25 Mar. 1943, it is stated, "There will be failures. But if fifty percent can be rehabilitated, the program will be worthwhile." There is complete agreement with this statement and it is believed that at least one-half of the men will be rehabilitated. The Chief Surgeon in reporting on the subject as he found it in North Africa, stated, "Here, when made into Engineer, Pioneer or Labor units under good commanders and strict discipline such cases have done well and are doing a lot of work." In this theater the Canadian Army has a special unit for neurotics and psychopaths and it is stated that much valuable labor is done by these men, thereby releasing others for more specialized duties.

Question *b*. Conditions under which response can be expected? Should they be separated from other troops, or left to mingle with other soldiers during training? As indicated in the basic communication of the Chief Surgeon, these men need good leadership and firm discipline. They will present many disciplinary problems at least at first. Discipline will have to be rigidly adhered to, but there should be ample provision for physical exercise(games), physical training, and entertainment. Because of the special program these men should be separated from other troops and should not have too free access to larger communities.

Question *c*. What methods of training are recommended? Since these men will "serve usefully in organizations in which the principal requirement is physical desirability rather than knowledge of specialized subjects," it is thought that training in general military fundamentals will be primary. No specialized trades or duties would be brought into the training. If possible, details should be assigned for labor duties outside the camp.

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[15] Memorandum, Senior Consultant in Neuropsychiatry for Chief Surgeon, ETOUSA, through Chief, Professional Services, 28 June 1943.

[16] Memorandum, Senior Consultant in Neuropsychiatry for Deputy Chief Surgeon, ETOUSA, 29 June 1943, subject: Concerning the T/O for Special Training Co. (Prov.).

[17] Memorandum, Senior Consultant in Neuropsychiatry for Chief, Professional Services, ETOUSA, 24 July 1943, subject: Special Training Company (Prov.).

Further plans evolved rather slowly in the various echelons of the services concerned. On 9 February 1944, the senior consultant in neuropsychiatry accompanied the Deputy Surgeon, Col. (later Brig. Gen.) Charles B. Spruit, MC, to Headquarters, Western Base Section, and inspected the proposed site for the "SOS [Service of Supply] Recovery Center." This camp, a converted racecourse, called Haydock Park Camp, was about 19 miles from the nearest hospital (168th Station Hospital). The capacity, about 300 men, was considered adequate since expansion by tentage was possible. Col. Mack M. Green, MC, Surgeon, Western Base Section, thought that there should be a full-time medical officer. It was suggested that the commanding officer and one or two other officers be men with combat experience. Also, the need for someone experienced in classification and assignment work was discussed.

It was agreed that no psychiatrist would be assigned, even on detached duty, although consultation would be available from the nearby hospital. At that time, the plans called for all prospective trainees to be screened through the 312th Station Hospital (NP) and not be sent from other hospitals or from army exhaustion centers. Later, the 96th General Hospital (NP) was designated as a screening center and, still later in 1944, general hospitals were permitted to send trainees directly to the center.

The order that definitely established SOS Recovery Center No. 1 was dated 22 March 1944.[18] The principal functions of the installation were listed as follows:

a. *MISSION:*

To give special training under strict military discipline to enlisted men who, because of personality problems or borderline intelligence, do not fit into combat or service organizations in this Theatre.

b. *PURPOSE:*

To rehabilitate enlisted men, through special training, for assignment to labor units or similar organizations of any elements of the Army in ETO.

c. *SELECTION OF ENLISTED MEN:*

Enlisted men showing poor adjustment through incorrigibility, repeated physical complaints without demonstrable basis, unwillingness to work, or, inaptitude for any specialized work, will be considered.

d. *SOURCE OF ADMISSION:*

The 312th Station and 96th General Hospitals will transfer the enlisted men to the Recovery Center, after definite mental disorder has been ruled out and it is established that there is some possibility of rehabilitation.

e. *TRAINING:*

The training program will consist of extensive basic military training, with emphasis on physical conditioning, the establishment of good working habits, strict discipline and sound morale. The training period will last from six (6) weeks to two (2) months and will be conducted under the supervision of specially qualified officers, selected for assignment to this Recovery Center by your headquarters.

f. *DISPOSITION:*

[18] 1st Indorsement, Assistant Adjutant General, Headquarters, SOS, ETOUSA, to Commanding Officer, Western Base Section, SOS, ETOUSA, 22 Mar. 1944. [Basic letter not available.]

(1) Upon completion of the training period, the men who are considered fit for some form of duty will be sent to the 10th Replacement Depot. Close coordination is necessary between the Recovery Center and the replacement depot so as to insure the placement of these men in jobs of which they are capable. (Records will be forwarded 48 hours in advance.) Disposition form as outlined in Circular Letter No. 10, Office of the Chief Surgeon, will be used with particular recommendation for assignment.

(2) Men not fit for any type of duty in this Theatre after training, should be considered for discharge under the provisions of a Section VIII (AR 615–360) Board.

Capt. (later Maj.) Robert H. Sipes, Inf, was designated as the commanding officer. The first trainees were admitted on 2 May 1944. Operations at the center proceeded smoothly and the principles just quoted were followed without too much difficulty.

Ten months after the opening of the center, Colonel Thompson made the following note in his diary:

Monday, 12 March 1945.—Visited Recovery Center No. 1 at Haydock Park Camp. It was found that Major Sipes, Commanding Officer, had departed early in the morning for the Continent, and it was thought that the move of the Recovery Center to the Continent was being contemplated. There was a tour of inspection of quarters, messhall, and other parts of the camp. The activities of the trainees were observed in the field. The Recovery Center has received 1,278 men for training. They have disposed of 996 men and all except 41 have gone to duty in the theater. There have been only eleven (11) Section VIII proceedings. Of those returned to duty, approximately one-half went to general assignment and one-half to limited assignment. The institution was visited recently by General Lee [Lt. Gen. John Clifford Hodges Lee] and General Spruit and at the end of the visit General Lee awarded a Bronze Star to Major Sipes. It was thought that the establishment of a similar Recovery Center on the Continent would be definitely advisable.

A week later, Colonel Thompson conferred with Maj. Gen. Paul R. Hawley, the Chief Surgeon, concerning the movement of the recovery center to the Continent. It was estimated that a capacity of 1,000 should be planned. However, the move was not accomplished immediately and the war drew rapidly to a close in the European theater. A memorandum, written by Colonel Thompson, dated 8 May 1945 [19] (V–E Day), said: "The Recovery Center will be moved from the UK [United Kingdom] and established on the Continent on or about 10 May 1945." The move was accomplished, but because of rapid deployment, policy changes, and other factors, the center did not function fully as intended.

In the year of its existence, the recovery center under the command of Major Sipes made an excellent record. More than 1,000 soldiers were returned to duty (almost one-half to full assignment) and not over 7 percent of the trainees were disposed of other than to duty. The recovery center remained very much a "free floating" or "free lance" unit, not belonging to the medical (certainly not psychiatric) service, Ground Forces reinforcement service, or any other specific service beyond the general Services of

[19] Memorandum, Senior Consultant in Neuropsychiatry, for Chief Surgeon, ETOUSA, through Chief, Professional Services, 8 May 1945, subject: Estimates on Recovery Center.

Supply, and under Western Base Section command. For obvious reasons, any association with medical services was avoided from the very start. The center was kept distinct from the disciplinary training centers. Quite early, Major Sipes expressed his desire for a more definitive assignment of the center so that he could be in a less remote and ambiguous chain of command. Finally, it was decided that the recovery center should be a part of the Ground Forces Reinforcement System, but the decision was not fully accepted until the end of combat in the European theater.

QUARTERMASTER BATTALION REPLACEMENTS

From D-day to 12 July 1944, psychiatric casualties amounted to 8.5 percent of the total nonfatal battle casualties coming to clearing stations. This was during the very difficult "hedgerow" fighting and all divisions had been on the line a month or more with no prospect of relief. There were no neuropsychiatric treatment facilities between the Army exhaustion centers and the hospitals in England. Up to 10 July 1944, only two avenues of disposition were open; return to original assignment, or evacuation to the United Kingdom. On 10 July, it became possible to send certain patients directly to noncombat assignments within the First U.S. Army.

In a conference on 12 July 1944, attended by the Senior Consultant in Neuropsychiatry, the Surgeon, Supreme Headquarters, Allied Expeditionary Force, the Surgeon, First U.S. Army, and the Consultant in Neuropsychiatry, First U.S. Army, the objection to letting these psychiatric patients "escape" to England was brought up and the possibility of using them in labor assignments or work other than direct combat on the Continent was discussed. The following day in a conference with the Chief of Staff, First U.S. Army, plans were made to form on the Continent a special unit similar to the recovery center for certain patients carefully selected by the First Army exhaustion centers.

On 23 July 1944, in response to a proposal that "battle weary" cases be sent to a replacement depot for rehabilitation and training, the Senior Consultant in Neuropsychiatry made the following reply:

1. Reference to the "battle weary" cases in the basic communication is interpreted as meaning the NP casualties called "Exhaustion."

2. It is recommended that such cases remain under medical (psychiatric) treatment and care until a definite decision as to return to combat duty; to return to noncombat duty; or to be further evacuated can be made. It is thought that a replacement depot is not a proper place for further rehabilitation of these patients. They should be ready for duty (combat or noncombat) without delay when they enter the replacement system.

3. The above would not preclude the establishment, within the Army or in the Communications Zone, of a special labor unit with specially qualified personnel for the "unwilling soldier." Such a unit would be similar to the Recovery Center in the U.K. Patients going there would be the incorrigible psychopaths, the borderline mental defective, etc. They are a different group from the ordinary run of exhaustion patients al-

though they may come back labeled "exhaustion" since this is an all inclusive NP term. In time trainees would "graduate" from the unit.

4. It is recognized that with the 10-day holding policy of the Army there are many patients who have not quite recovered at the end of this time, but with additional treatment may return to duty rather than be evacuated to the U.K. Now with the establishment of general hospitals on the Continent this additional care and treatment can be carried out by the NP services of these hospitals. Later a special NP hospital will be available for this function.

5. *Recommendations:*

a. That "exhaustion" patients remain under medical psychiatric care until a definite decision regarding duty or evacuation be made.

b. Exception to the above would be the establishment of a special labor unit for "unwilling soldiers" similar to the Recovery Center in the U.K.

However, quite contrary to these recommendations, on 26 July 1944, the following directive was issued from Headquarters, ETOUSA, to Commanding General, Advance Section, Communications Zone:

Recent investigation indicates that cases of Battle Exhaustion not immediately returnable to combat but who no longer require medical treatment and supervision are occurring in increasing numbers in the combat zone. Policy governing disposition of these cases will be:

1. Every echelon of command and medical service will screen such cases with the utmost care to insure immediate return to combat duty of the greatest possible number.

2. Cases involving self inflicted wounds other than those definitely proven to be accidental will be returned to their units by medical authorities for appropriate disciplinary action.

3. Cases which appear to be disciplinary will be returned to their units by medical authorities for initiation of action toward their elimination from the service under existing regulations under other than honorable conditions.

4. Potentially good combat material who require a brief further period of work and military training to prepare them for return to combat will be turned over to the replacement system on the Continent for further rehabilitation and reassignment to combat units as replacements at the earliest practicable date.

5. Personnel who are still capable of some service whom medical authorities certify as not being returnable to combat for at least an extended period will be:

a. Assigned to a detachment of patients of a Communications Zone hospital designated by the Commanding General, Advanced Section.

b. Formed into labor units for hard labor on projects designated by the Commanding General, Advanced Section.

c. Supervised, administered, housed, and messed by the using service in the Communications Zone.

Medical records and any further required medical supervision of this category of personnel will be maintained by the hospital to which assigned. War Department authority is being requested to form provisional labor units with such personnel in addition to Theater troop basis. Further instructions will be issued upon receipt of information as to War Department action. Meanwhile it is desired to make these labor units sufficiently difficult so that combat service will be preferable. Personnel assigned thereto who became rehabilitated to the point where they requested return to combat duty will be turned over to the replacement system for brief retraining and reassignment as replacement personnel. Initially the Chief Quartermaster has stated that he will utilize and furnish necessary supervisory and administrative overhead for all combat exhaustion cases placed in these labor units.

In this connection, a memorandum from the Chief Surgeon to G–1 (personnel), European theater, dated 4 August 1944,[20] is quoted in full (appendix B) as further evidence of the policy adopted soon after D-day, in respect to soldiers with combat exhaustion. Neither of these communications came to the attention of the senior consultant in neuropsychiatry until 1 September 1944.

General Hawley's memorandum was the authority for the establishment of what became known as the 90th Quartermaster Battalion. At the end of July 1944, it became necessary to move forward the exhaustion centers of the First U.S. Army. Approximately 1,300 combat exhaustion cases were evacuated to the medical services of Advance Section, Communications Zone. The 5th General Hospital, the first general hospital to open on the Continent, received its first patients on 1 August 1944 but, of course, could not admit the neuropsychiatric caseload mentioned. In accord with the directive, 1,360 psychiatric patients were placed at the 90th Quartermaster Battalion on 3–4 August 1944. They were screened in 2 days by a group of nine psychiatrists who were drawn from staging general hospitals. Twenty-one patients were returned to the 5th General Hospital for further treatment; the remainder were placed in the detachment of patients of the 5th General Hospital and kept for noncombatant duty.

These men were immediately formed into companies with appropriate officers and company organization. The companies conformed as nearly as possible to TO 10–637 of a quartermaster service company. Some companies were commanded by officers with "combat exhaustion," but most were headed by quartermaster or ordnance service officers. The original issue of equipment included no vehicles and no recreational equipment. The men, quartered in individual tents, were self-servicing. Strict discipline was maintained, and the day was occupied with company work or assignment to work details for the Quartermaster. As rapidly as possible, companies were sent out to other Quartermaster units, Ordnance units, and hospitals. The organization at the 90th Quartermaster Battalion was quickly perfected so that the men remained there about 4 days before being sent on in a company.[21]

Observation of these men at the time of the initial screening revealed that practically all of them were anxious to be assigned to some work so they could stay and help their friends "up forward." They thought the work around the camp had been good for them, and it was reported that they were willing workers. They spoke of their inability to be in combat again, but they wanted to help here rather than be hospitalized again, regardless of continued "jumpiness," fear of planes, and poor sleep with battle dreams.

[20] This is a rather extraordinary memorandum which clearly states the common hostile attitude of senior medical authorities toward psychiatric casualties. Changing such attitudes occupied much of the time of psychiatric consultants. In the end, the patient efforts of the senior psychiatrists were successful, in practically all theaters.—A. J. G.

[21] The Commanding Officer, 90th Quartermaster Battalion, deserves great credit for his understanding of the problems, for his protection of the men against "punitive" assignments which were requested, and for the excellent and quickly established morale of the unit.

A state of tension was obvious in many, but very few showed gross tremors. Some complained of headaches. Those who had had stomach disorders reported improvement and good appetite. Most of the men thought they had lost weight during combat.

By 14 August 1944, 2,145 men had been sent to the 90th Quartermaster Battalion—1,602 from the two exhaustion centers, 258 from replacement depots, 88 from the 5th General Hospital, 55 returned from placement, and the remainder from various sources. A total of 1,464 had been sent out on work assignments, but remained in the detachment of patients of the 5th General Hospital. Reports from units where the men were assigned were very favorable. For example, an Ordnance unit reported that they were assembling jeeps and trucks in less time than average. The 77th Evacuation Hospital, where about 90 of these men were sent to act as stretcher bearers, reported that the efficiency of evacuation was greatly improved and that only three men failed to be good assets. Also, in the fighting at the time of and just after the breakthrough on the south, these men were of great value in keeping supplies moving to the combat units. Almost 900 men went to base depots where they assisted in transportation of ammunition and supplies, often as truckdrivers. It is to be remembered that wherever these "QM companies" were assigned, they were in excess of the table of organization and therefore most welcome.

After observing the situation, Colonel Thompson made the following recommendations on 14 August 1944:

a. That the present arrangement for the evacuation and disposition of mild combat exhaustion patients from Army be continued until the 130th General Hospital (NP) is functioning on the Continent.

b. That patients be sent to the 90th QM Bn only after proper sorting at Army NP units, the 77th Evacuation Hospital, or the general hospitals.

c. That screening by psychiatrists be continued at the 90th QM Bn.

d. That plans be made for a more definite assignment of patients placed in service work units.

e. That with the installation of the 130th General Hospital (NP) on the Continent, all NP patients evacuated from Army go to this hospital where further sorting will occur and additional use of arrangement similar to the present one will be made.

It was fully anticipated that the 130th General Hospital would be functioning by 1 September 1944. Also, it was pointed out that "if continued at the present rate there would soon be several thousand on the list of the detachment of patients at the 5th General Hospital and these men, still in the category of patients, would be scattered over a wide area." Very few of these patients had been seen at the 5th General Hospital and the hospital had no control over them or knowledge of their whereabouts.

At the end of August 1944, administrative control of the companies was transferred to the 96th Quartermaster Battalion at a location farther forward. The men remained assigned to the Detachment of Patients, 5th General Hospital, but all subsequent assignments were to the Detachment

of Patients, 19th General Hospital. Although assignments to the Quartermaster battalion continued in September, approximately 90 percent of the entire group had been assigned during 3–28 August 1944. By September, more general hospitals were located farther forward, and more and more patients were evacuated from the Army to the general hospitals. Therefore, the process of sending psychiatric patients to the Quartermaster battalion practically ceased by the end of the month.

There remained the problem of dealing with approximately 4,500 men widely scattered over France, whose assignment was the detachment of patients of a general hospital. By 1 September 1944, plans had been submitted in cooperation with the Hospitalization Division, Office of the Chief Surgeon, and Ground Forces Reinforcement Command for screening these men by psychiatrists for definite reassignment to duty or rehospitalization, as indicated. The names of four psychiatrists to serve in this function were submitted, and they were ordered to the 19th General Hospital. Later, the number was increased to nine. One reinforcement depot in the vicinity was designated to deal with replacement assignments.

Very little progress was made during September in getting these units to the 19th General Hospital for screening. Late in September, the Commanding Officer, 96th Quartermaster Battalion, requested a study of the mental and physical status of the men; this was carried out by Maj. Roy L. Swank, MC, psychiatrist of the 5th General Hospital. In the study, three companies were observed over a period of 3 weeks and 13 companies, comprising over 3,000 men, were interviewed by the spot check method during a period of 1 week.

This study revealed that all combat personnel (officers and enlisted men) still had symptoms. Practically all were nervous, sleepless, forgetful, overreactive to noises, and tense. Many men complained of somatic symptoms, especially of (1) headache, backache, and arthralgic pains; (2) abdominal pain and vomiting; (3) palpitation, chest pain, and dyspnea after slight exertion; and (4) fatigability and weakness. Failure to gain back the weight lost in combat was very common.

These symptoms occurred with varying frequency in different companies, depending in large measure on influencing factors. Four companies were doing moderately well. The men were improving slowly but steadily, and the morale was good. Their working conditions—duration, intensity, and type of work—the officer personnel, the medical care, and the recreation were satisfactory.

In contrast, three companies were doing very poorly. Their general health was failing and the morale was poor. The men had worked 12 hours every night since activation, and they were not permitted to leave the work area. They handled an excessive load in face of the fact that other troops around them were working fewer hours, handling less freight, and receiving passes and more recreation. In another company where the group spirit and

morale appeared high, the men called themselves "Lt. Smith's bomb-happy bastards." They did not want to have anything to do with outsiders, and kept closely to themselves. They thought that they would not get credit for their combat service, but would be treated as a labor company and not sent home as soon as their original units. The remaining companies were getting along fairly well despite various unsatisfactory circumstances.

In general, many of the men had developed hostility; placing them together had increased their hostility. The groups were frequently alluded to by such terms as "War Weary Veterans," and this intensified antagonism. There was a general feeling of not belonging because they were not normally assigned to any definite unit, and their military status was very uncertain. It was concluded that the majority of the men were still sick and that there should be an immediate evaluation to decide about hospitalization or definite assignment. The opinion was expressed that, in the future, medical consideration should precede such a work program.

The screening process met with many delays because of transportation difficulties, and for other reasons. It did not get underway in a systematic manner until the middle of October 1944. Then it was found that the only reassignment open for most of the men was to military police and prisoner-of-war guard duty. Provisional companies were urgently needed in such work and, though it was considered that neuropsychiatric patients would be assigned only to office or administrative places, all such positions had been filled and all that remained for neuropsychiatric patients was guard or traffic duty. This procedure was protested, and the situation was quickly corrected so that other assignments could be made. It is an interesting footnote that later, 19 July 1945, Army Service Forces Circular No. 276 forbade the use of soldiers with a history of psychoneurosis as prisoner-of-war guards.

Up to 29 October 1944, 2,049 men had been screened, and just over one-half were hospitalized for further treatment. Practically all the men, or a total of 4,588, were processed before the end of November 1944, but a few remained unreported until V–E Day. Of the 4,588 men, 2,085 (45 percent) were returned to duty by way of the 15th Reinforcement Depot (only one for general assignment), and 2,503 (55 percent) were hospitalized.

The board of psychiatrists who did the screening made an official report of their findings on 26 November 1944. This excellent report (appendix C) shows the methods used and the type of problems encountered and reveals that relief from combat duty did not cure these men.

In April 1945, approximately 5 months after the final screening, a followup on 1,000 enlisted men (500 from the hospitalized group, and 500 from the duty group) showed their status, as listed in table 61.

Although the final result in conservation of manpower should be considered good, a somewhat better record and a greater saving in time would have resulted if these men could have been sent directly from the Army

TABLE 61.—*Followup status, 5 months after final screening of 1,000 enlisted men, April 1945*

Status	Hospitalized group		Group returned to duty		Total	
	Number	Percent	Number	Percent	Number	Percent
On duty in theater	334	66.8	467	93.4	801	80.1
Evacuated to Zone of Interior	60	12.0	4	.8	64	6.4
Transferred from theater	83	16.6	15	3.0	98	9.8
In hospital	0		4	.8	4	.4
Casualty	1	0.2	2	.4	3	.3
No record	22	4.4	8	1.6	30	3.0
Total	500	100.0	500	100.0	1,000	100.0

level to a special neuropsychiatric hospital on the Continent, and one should have been there with the 5th General Hospital.

Colonel Menninger visited the theater in the fall of 1944, and in November, he observed some of the screening of the Quartermaster companies. He commented on the handling of these cases, in part, as follows: "Many of these had had inadequate treatment, having come directly from Exhaustion Centers * * * their guilt reaction, their feelings of inadequacy and the atmosphere of impersonalness at replacement depots can all combine to continue and increase the neurotic disability and thus convert transient neuroses into permanent, pension-seeking chronic neuroses."

CLINICAL PSYCHOLOGISTS

Before the assignment of a clinical psychologist on the table of organization of general hospitals in September 1944, many psychiatrists had utilized in the neuropsychiatric services enlisted men who had had some training and experience in clinical psychology. These enlisted men ranked from private to technical sergeant; some had Ph. D. degrees, and some had been trained as social workers. All neuropsychiatric hospitals had two such men; general and station hospitals used such personnel when available; and, in a few instances, division neuropsychiatrists located soldiers with some training in psychology and utilized their services. Psychiatrists in Army medical facilities, including exhaustion centers, also made use of such services when available. This arrangement was a matter of chance, and sudden losses of valuable men through reassignment could not be avoided.

The first commissioned clinical psychologists for service in medical units arrived in the European theater in September 1944, assigned to general hospitals. The general hospitals at that time arrived overseas with only one-half the officer strength required and with practically no medical specialists. This was in accordance with a reduced table of organization for

these units and an agreement to fill specialty posts from older units in the theater.

In the meantime, before landing or during the staging period, the clinical psychologists as a rule were assigned to a variety of duties not related to service on a neuropsychiatric section. Frequently, considerable time elapsed before some units were definitely located and began to take patients. In a few instances, the unit functioned as a prisoner-of-war hospital.

In the latter part of 1944, efforts were made to publicize War Department Circular No. 392, dealing with the appointment of clinical psychologists.[22] This was accomplished principally by means of a letter, dated 21 December 1944, from theater Headquarters, Adjutant General's Division, which implemented the provisions of this circular letter and which reached each unit commander.

Early in February 1945, applications from enlisted men for commission began to arrive in the Office of the Chief Surgeon and, for a time, were handled by the senior consultant in neuropsychiatry. As applications increased in number, it soon became obvious that assistance would be necessary. Also, at this time, a letter was received from Lt. Col. Morton A. Seidenfeld, AGD, Chief Clinical Psychologist, Neuropsychiatry Consultants Division, SGO, who pointed out that certain psychologists in the European theater had written him, voicing complaints at their assignment.

To survey the situation and determine what problems had developed, Maj. Douglas McG. Kelley, MC, was appointed Consultant in Clinical Psychology. Major Kelley, a psychiatrist, was also an associate member of the American Psychological Association and coauthor of a book on the Rorschach Test.[23]

In March 1945, Major Kelley made a survey of the general hospitals on the Continent and elicited a number of important facts dealing with psychologists. In some hospitals, the psychologist assisted the psychiatrist in the work of the neuropsychiatric section. In a number, however, psychologists were being employed in activities outside the neuropsychiatric service. Many of the activities were full-time jobs; some psychologists had been assigned to as many as 10 posts usually undertaken by Medical Administrative Corps officers. In almost every instance, the psychologist was serving as the information and education officer, the special service officer, and frequently the post exchange officer. In a few special cases, psychologists had even been assigned in charge of prisoner-of-war camps, miles distant from the hospital.

From an investigation of these problems, Colonel Thompson found that frequently the commanding officer and the psychiatrist did not understand the proper utilization of the psychologist. As a rule, the commanding officer

[22] War Department Circular No. 392, 2 Oct. 1944, sec. II.

[23] Klopfer, B., and Kelley, D. M.: The Rorschach Technique. New York: The World Book Co., 1942.

was agreeable to reassignment of the psychologist to the neuropsychiatric section if the psychiatrist would provide an adequate day's work for the psychologist. In most instances, the psychiatrist was unfamiliar with the usual duties of the clinical psychologists and consequently had not properly employed them as full-time assistants.

Because of such misassignments, the psychologists were naturally dissatisfied and a few of them had already requested transfers to hospitals where their education and experience could be more properly utilized. In a few instances, the psychologists had complained that they had not been properly employed in hospitals which had never actively functioned in the theater. This situation was unfortunate, but the problem was that of the entire hospital as well as that of the psychologist.

From Colonel Thompson's investigation, it was obvious that many psychologists in the theater were not being properly utilized. Immediately, three approaches to the solution of the problem were undertaken:

1. Administrative Memorandum No. 17, Office of the Chief Surgeon, 17 March 1945, outlining the duties of the clinical psychologist, was prepared and distributed to every hospital. An article, "The Functions of Clinical Psychologists in the E.T.O.," was written and published in the *Medical Bulletin, No. 30*, Office of the Chief Surgeon, April 1945. This article briefly outlined the major functions of the clinical psychologist. It mentioned the vital importance of following up a recommendation for reclassification with adequate assignment recommendations, both positive and negative. It placed the responsibility for taking and carefully recording clinical and social histories on the psychologist, not only to save the time of the busy psychiatrist but also to obtain important data which could facilitate more appropriate assignment recommendations.

The usual armamentarium of psychological tests was mentioned, but the neuropsychiatrist was admonished to familiarize himself with such tests to make full use of the psychologist's potentialities. Also the psychologist was to be used in all phases of the rehabilitation program for neuropsychiatric cases and was to assist the psychiatrist in developing an efficient program of this type. Both publications served to impress the commanding officer and the neuropsychiatrist in each general hospital with the duties and the methods of utilization of the psychologist.

2. A series of meetings with the psychiatrists and psychologists in each hospital center was planned. Two such meetings were held—one for neuropsychiatrists in the Paris area, and one for the psychiatrists in the United Kingdom.[24] At these meetings, the problem of proper utilization of the psychologist was brought up and it was emphasized that the neuro-

[24] (1) Report, Capt. Saul Steinberg, MC, Recorder, to Col. Yale Kneeland, MC, Medical Coordinator, Office of the Surgeon, UK Base, ETOUSA, 10 Apr. 1945, subject: Meeting of Group Consultants in Neuropsychiatry. (2) Memorandum, Senior Consultant in Clinical Psychology for Senior Consultant in Neuropsychiatry, ETOUSA, 10 Apr. 1945, subject: Notes on Meeting of the Medical Center Psychiatric Consultants of the United Kingdom Base.

psychiatrist was responsible for properly employing the psychologists assigned to him. On the Continent, neuropsychiatric consultants in hospital centers held meetings and in other ways looked into this matter.

3. Every psychologist who submitted a complaint was personally interviewed, and attempts were made to clarify his problems. In many cases, these personal interviews resolved the difficulty, but in others, it was necessary to discuss the matter fully with the commanding officer before a solution could be achieved. In addition, many other hospitals were routinely visited, and any problems which might have developed were individually corrected. In all instances, cooperation between the psychologist, the psychiatrist, and the commanding officer was easily obtained once a general understanding of the basic functions of the psychologist was reached.

The clinical psychologist was further handicapped by lack of test material. In March 1945, less than a dozen different standard psychological tests were ordered. By 1 June 1945, the only materials that had arrived were the Army General Classification Tests 1C and 1D which were already in the theater, 50 sets of Rorschach cards (ink-blots) that were procured directly from Switzerland, and 25 sets of the Thematic Apperception Test. Other more commonly used tests, such as the Wechsler-Bellevue Intelligence Scale, had not arrived.

As of 30 June 1945, the Office of the Senior Consultant in Neuropsychiatry had received 608 applications for clinical psychologist commissions; 533 were rejected. In 75 cases, commissions were recommended, and the applications were sent to the War Department where 33 were rejected, 15 were approved, and 27 were still pending. On 1 July 1945, 50 clinical psychologists, including the 15 newly commissioned officers, were assigned to general hospitals in the theater.

It is impossible to adequately assess the value of the work of the clinical psychologists in the theater during the last 6 months of activity. Movement of hospitals and personnel, changes in duty assignments, and differences in the utilization of psychologists preclude any definite summary.

In the Paris area, where conditions were most favorable, all neuropsychiatrists and commanding officers were very complimentary in their comments. At one hospital, a team made up of one psychologist and two assistants, from 14 March to 25 May 1945, completed qualification cards and recommended assignments on all discharged patients—medical, surgical, and neuropsychiatric. A total of 1,190 patients (429 limited assignment and 761 general assignment personnel) were interviewed. A check at the reinforcement depot showed that with only an occasional exception the assignment recommendation of the psychologist was followed without change, effecting a considerable saving of time spent in the depot. It was planned to adopt this type of service in other general hospitals.

There was no doubt in the mind of anyone in the theater, who observed the work of the psychologist, of the great value to the neuropsychiatric

service when the psychologist was adequately aided and encouraged by the chief of the neuropsychiatric service and his commanding officer. It was believed that the problems of the clinical psychologist in the European theater were handled as adequately as possible. Unfortunately, the elaborate plans for such activities as group meetings and education had to be discontinued following V–E Day.

After V–E Day, almost all the psychologists were assigned to overseas units for direct redeployment. The few who remained were attached to general hospitals assigned to the occupation zone. None of these men was sufficiently high in points to call for any other type of assignment.

Part III

PACIFIC AREAS

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CHAPTER XII

South Pacific Area

M. Ralph Kaufman, M.D., and *Lindsay E. Beaton, M.D.*[1]

To give as comprehensive a picture as possible, the writing of this part of the history was divided among a group of individuals who at some given time participated actively in the events to be described. The divisions are related both to theaters and to time. Thus, Lt. Col. (later Col.) Edward G. Billings, MC, assumed the major responsibility for the SPBC (South Pacific Base Command) since he succeeded Lt. Col. (later Col.) M. Ralph Kaufman, MC, as the neuropsychiatric consultant when Colonel Kaufman was transferred to the POA (Pacific Ocean Area) in August 1944. Nevertheless, it is believed that it would be of value to sketch in briefly the background of the South Pacific when it was USAFISPA (U.S. Army Forces in the South Pacific Area). In addition, specific events will be presented as they seem relevant to the evolution of a psychiatric program in this area.

NATURE OF THE THEATER

Both the defense of Australia and the buildup for American offensives involved two separate administrative areas. The Southwest Pacific Area comprised Australia and the areas immediately north, including (before 7 May 1942) the Philippines. Within SWPA (Southwest Pacific Area), Gen. (later General of the Army) Douglas MacArthur commanded land, sea, and air forces. The Pacific Ocean Area included the rest of the Pacific theaters and was commanded by Fleet Admiral Chester W. Nimitz. The Pacific Ocean Area was further divided into three sections: the South, Central, and North Pacific Areas (map 17). Admiral Nimitz retained direct command of the Central Pacific Area.

The SPA (South Pacific Area) was a naval theater with boundaries extending south of the Equator and from the west coast of South America, initially to 159° east longitude. Supreme command was held by Vice Adm. Robert L. Ghormley and, later, by Vice Adm. William F. Halsey. The command included all U.S. naval forces as well as the Army Air, Ground, and Service Forces. The Army Service Forces, known as SOS-SPA (Services of Supply-South Pacific Area) were commanded by Maj. Gen. Robert G. Breen. The Army chain of command extended down from USAFISPA, under the command of Maj. Gen. (later Lt. Gen.) Millard F. Harmon, to the various

[1] Deceased, 8 February 1969.

MAP 17.—The Pacific Commands, April 1942–June 1945.

island commands; from SOS-SPA, command extended to the service commands.[2]

Geographically, the Southwest Pacific Area and the South Pacific Area differed widely. Australia was a continental area the size of the United States but contained only 8 million people who were concentrated along the coast and in the south. Most of the rest of the continent was uninhabited desert. Great distances, a dearth of good roads, and a railroad network which operated on four different gages made transportation difficult. For her population, Australia, one of the original allies, was strong militarily and possessed a fine martial tradition which dated back to World War I. The civilian population gave the American troops, who arrived at a time when the best Australian divisions were in the Middle East, an enthusiastic welcome and warm support.

The South Pacific, which resembled the Southwest Pacific only in its vast distances and those were over water, included the two large islands of

[2] King, Arthur G.: Medical History of Espiritu Santo (New Hebrides) Service Command [12 Mar. 1943–15 May 1944]. [Official record.]

New Zealand, the smaller but still sizable islands of Fiji, New Caledonia, and New Hebrides, and thousands of smaller islands ranging in size from tiny atolls to island groups of some importance, such as Samoa and the Tongas. New Zealand had an excellent temperate climate, a real metropolitan area, an abundant and diversified food supply, and a friendly population. All the other islands had either subtropical or tropical climates, and all contained native populations whose standards of sanitation were well below those of the U.S. Army. The New Hebrides and the Solomons were typical of tropical islands with much rainfall, high humidity, and numerous tropical diseases. Except in rare instances, the islands selected for bases were separated by hundreds of miles. This, plus the distance from the United States, greatly complicated the problems of communication and evacuation.

Tactical Considerations

In mid-March 1942, about the time General MacArthur arrived in the Southwest Pacific Area, Japanese forces were on the island of Timor, off the northwest coast of Australia, and with their seizure of Rabaul on New Britain, the way seemed open for the Japanese invasion of Australia.[3] Japanese plans were to move south and southeast of Rabaul by occupying the south shore of New Guinea at Port Moresby (Papua) and by thrusting through the Solomon Islands to New Caledonia, the Fijis, and the Samoa Islands, thus cutting communication between the United States and Australia (map 18).

The Battle of the Coral Sea (8 May 1942) turned back the Japanese in their effort to take Port Moresby by amphibious assault. (The reinforcement of Port Moresby by MacArthur's forces and their subsequent offensive in New Guinea are considered in chapter XIV.)

The Battle of Midway (3–4 June 1942) lost the Japanese much of their naval striking arm and thus their plan to move southwest and from Rabaul to New Caledonia and the Samoa Islands. Instead, the Japanese established a seaplane base at Tulagi in the Solomon Islands and an airstrip on neighboring Guadalcanal.

In the interim, during early 1942, garrison forces of Army and Marine Corps troops were rushed to several of the island groups in the South Pacific Area, between Honolulu and Australia: New Caledonia, the Fiji Islands, Bora Bora in the Society Islands, Tongatapu in the Tonga Islands, and Efate in the New Hebrides Islands.

By mid-1942, the Americal Division was formed from three of the first regiments to reach the South Pacific Area. The 25th Infantry Division arrived from Hawaii, in early 1943, followed by the 27th, 40th, and 43d, in that order. The 93d Infantry Division was deployed in 1944.

[3] For further information and detail in regard to American and Japanese strategy in the early months of the war in the Pacific, *see* Morton, Louis: Strategy and Command: The First Two Years. United States Army in World War II. The War in the Pacific. Washington: U.S. Government Printing Office, 1962.

MAP 18.—Military theaters, Southwest Pacific Area.

The first offensive campaign of the South Pacific Area (August 1942) had as its major objective seizure of the Japanese seaplane base at Tulagi Island and the new airstrip that was being built on Guadalcanal. Attacking forces included three regiments of marines from the 1st and 2d Marine Divisions. Although tactical surprise was achieved and initial objectives rapidly obtained, a combined bitter struggle ensued to hold the area (maps 19 and 20).

In October 1942, Army troops (Americal Division) arrived in Guadalcanal. With further reinforcements (the 25th Infantry and 2d Marine Divisions) in December 1942, U.S. forces were able to maintain an offensive which eventually destroyed enemy elements on the island.

In the spring of 1943, the 43d Infantry Division moved into the Russell Islands, some 65 miles northwest of Guadalcanal, with the objective of

assaulting other Japanese-held territory; that is, the group of islands around New Georgia, some 160 miles northwest of Guadalcanal. On 21 June, the 43d Division and elements of the 37th Infantry Division and of the 1st Marine Raider Regiment began to land on the southern tip of New Georgia Island (maps 21 and 22). Stubborn enemy resistance indicated that reinforcements were needed from the 25th and 37th Infantry Divisions. Cleanup operations continued until the end of August 1943. Also in mid-August, XIV Corps completed the bypass of heavily fortified Kolombangara and seized Barakoma on Vella Lavella, 50 miles farther northwest of Munda Point, which permitted the building of another airstrip close to Bougainville and Rabaul.

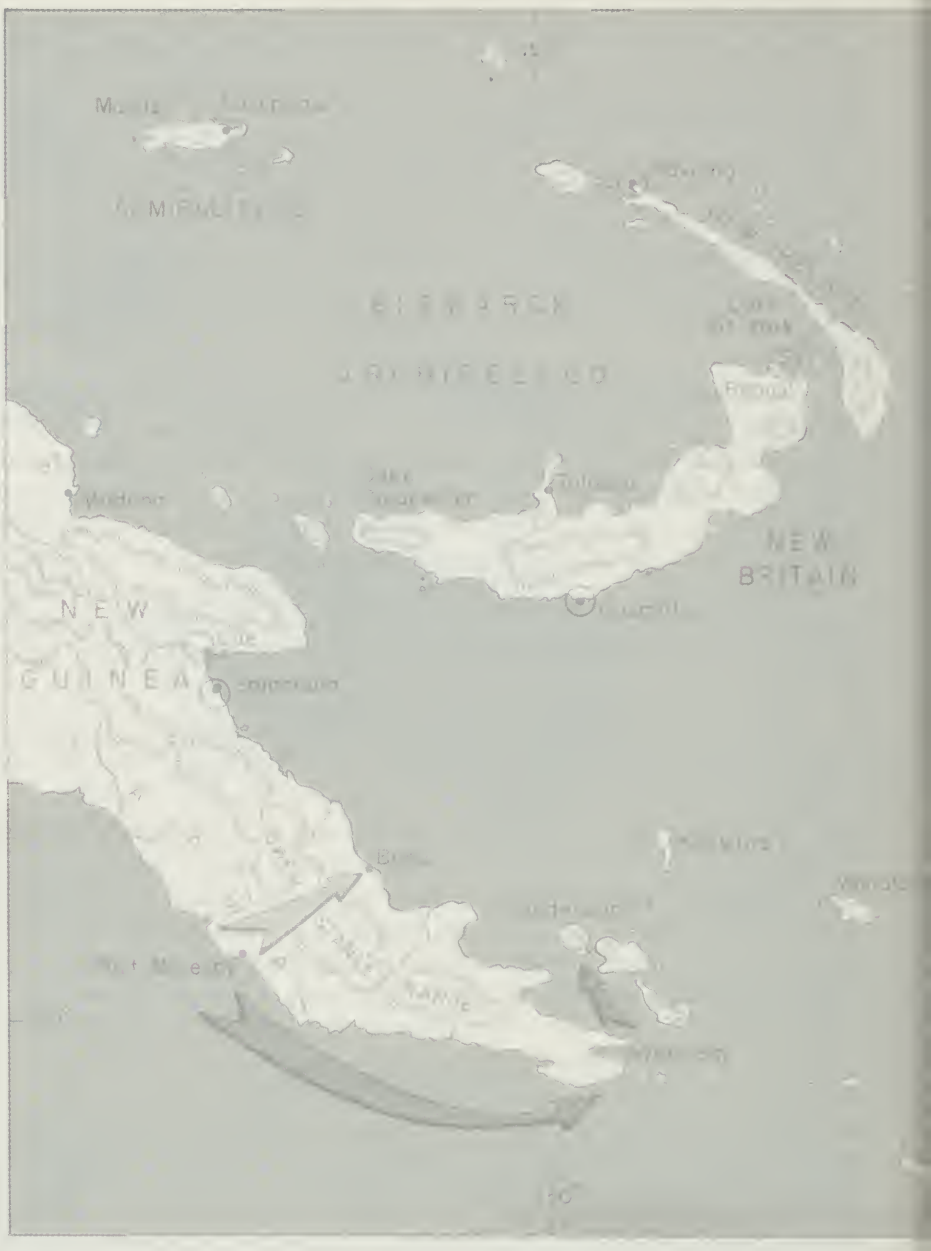
On 1 November 1943, the 3d Marine Division began landings on Bougainville with the objective of obtaining an airstrip to operate fighter aircraft for the final assault on Rabaul. Initially, landing forces found little opposition. During the next several weeks, they experienced severe air attacks, while opposing naval elements were in almost continuous action off Bougainville. By the end of the third week, however, considerable reinforcements, including other Marine elements and units of the 37th Infantry Division, had landed, and U.S. forces had time to prepare for the expected enemy counterattack by constructing airstrips and underground defensive perimeter positions, including artillery.

Enemy attacks were launched on 8 March 1944 and continued throughout the month. The result was slaughter of the enemy, and on 1 April, the principal combat elements of the Japanese no longer existed.

With Bougainville secure and Allied sea and air superiority established in the Solomon Islands, New Zealand forces were used in occupying the Green Islands, north of Bougainville. Offensive action in the South Pacific Area was drawing to a close; both Bougainville and the New Georgia Islands were in the Southwest Pacific Area, and in mid-1944, control was passed to General MacArthur. The South Pacific Area had finally run out of room.

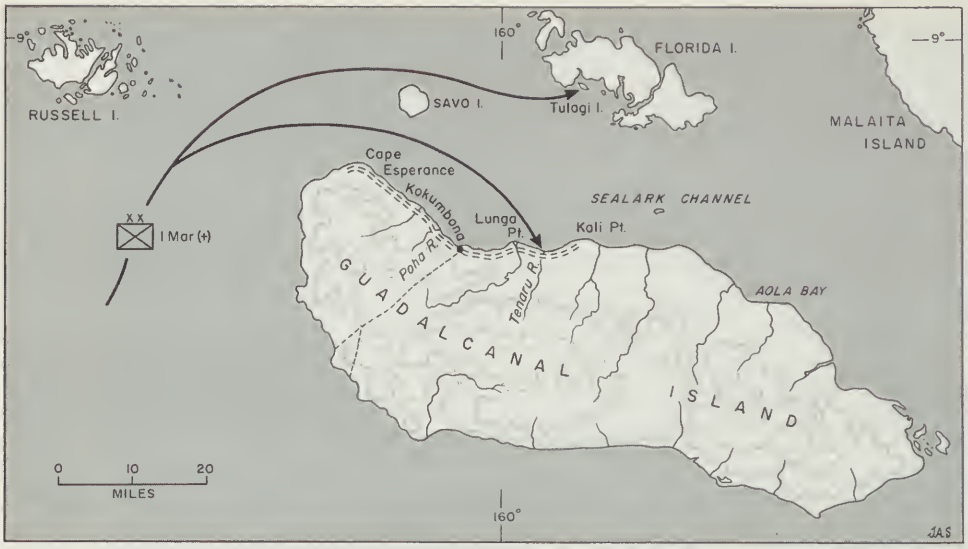
Medical Organization

Medical responsibilities in the South Pacific Area were more concentrated than in the Southwest Pacific Area. In the South Pacific, Col. (later Brig. Gen.) Earl Maxwell, MC, at headquarters in New Caledonia, served as Surgeon, USAFISPA; as Surgeon, Thirteenth Air Force; and after November 1942, as Surgeon, Services of Supply, South Pacific Area. As SOS surgeon, he held unquestioned preeminence among Army medical officers in the South Pacific. Colonel Maxwell served as deputy to Capt. Arthur H. Dearing, MC, USN, the chief medical officer for both Admirals Ghormley and Halsey, but because he had a larger staff, did most of the medical planning. Although Colonel Maxwell's staff included both SOS and USAFISPA



MAP 19.—Offensive operations, South

Pacific-Southwest Pacific Areas, 1942.



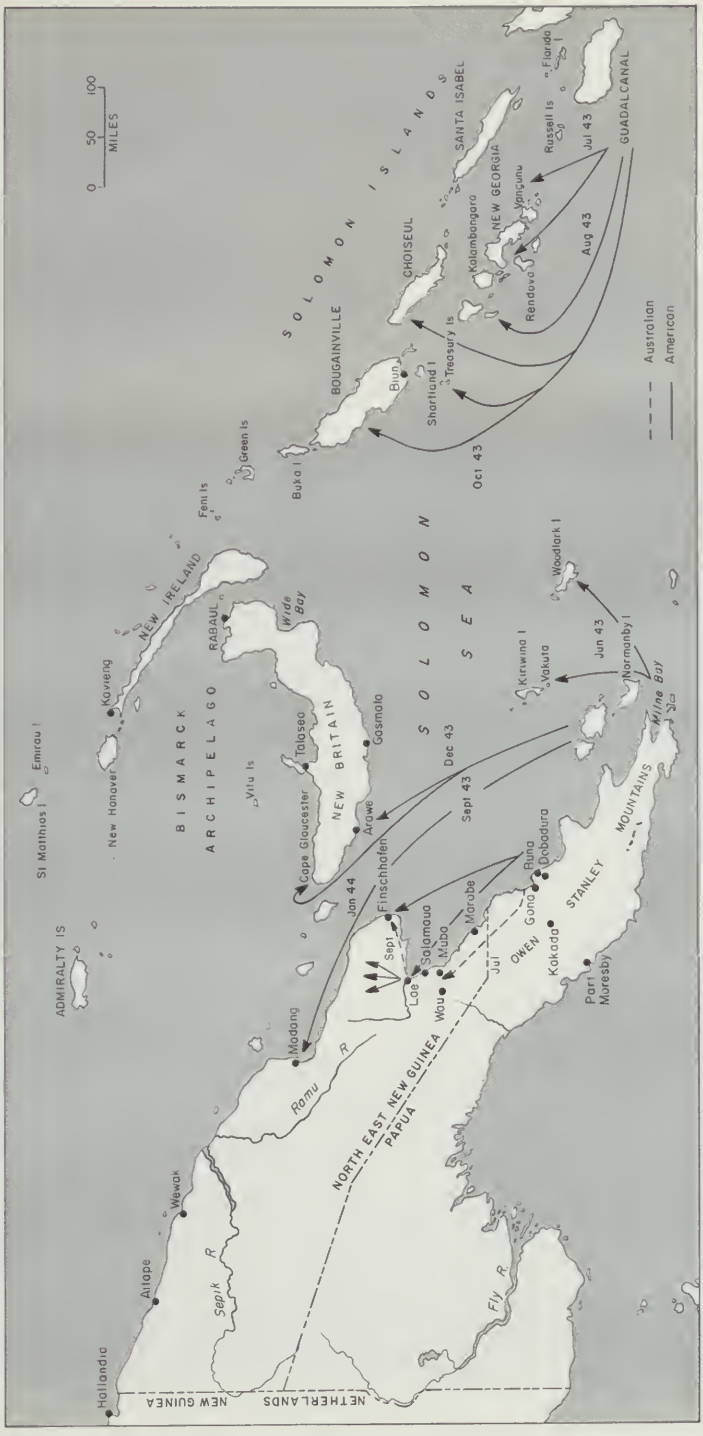
MAP 20.—Invasion of Guadalcanal, 7 August 1942.

officers, the two groups occupied the same quarters and worked together.[4]

The centralization of authority by Colonel Maxwell helped solve problems at higher echelons, but lower level organizations presented greater complications. On each of the more important islands of the South Pacific where Army garrisons were present (New Caledonia, Fiji, Efate, Espìritu Santo, Guadalcanal, New Georgia, Russell Islands), except New Zealand, an "island command" was established. The authority of the surgeons of these commands was less comprehensive than their titles would suggest.

Many islands contained numerous naval and air force units whose actions were not susceptible to the Army's ground medical control. Moreover, even the Army's ground medical functions were divided between the surgeon of the island command and the surgeon of the service command. In some cases where the same officer held both positions, this duality of control created little trouble. Where both officers were present, the division of duties had to be worked out in practice. In New Caledonia, for example, the surgeon of the island command was responsible for dispensary and clearing station care of tactical troops and for evacuation to fixed hospitals on the island. The surgeon of the New Caledonia Service Command was charged, among other duties, with all fixed hospitalization, reception and distribution of

[4] The principal sources used in the preparation of this section were: (1) Annual Reports, Surgeon, Headquarters, USAFISPA, 1942 and 1943. (2) Interview, Col. Samuel E. Stuart, MC, Office of The Surgeon General, 20 Jan. 1945, subject: Report of Medical Department Activities in South Pacific Area. (3) See footnote 2, p. 430. (4) King, Arthur G.: Medical History of New Caledonia Service Command [10 Nov. 1942–10 Mar. 1943]. [Official record.] (5) Essential Technical Medical Data Reports, U.S. Army Forces in the South Pacific Area, for August 1943, dated 17 Sept. 1943, and for February 1944, dated 7 Mar. 1944.



MAP 21.—Offensive operations in South Pacific-Southwest Pacific Areas, 1943.

MAP 22.—Landings in New Georgia, 21 June–5 July 1943.

casualties from foreign areas, and medical problems of the port of embarkation.

Where many services operated on the same island, such problems as related to sanitation, garbage disposal, and malaria control were difficult to resolve satisfactorily. Indeed, in some instances, they were never solved, and this failure resulted in wholly unnecessary health problems. On New Caledonia, an answer was sought with the creation, on 21 December 1942, of the Joint Sanitation Board, consisting of the senior medical officer of the U.S. Navy, the island command surgeon, the service command surgeon, the New Zealand Assistant Director of Medical Service, and the French Director of Health. This board, which divided responsibility for various functions of medical service, adopted uniform policies and reduced duplication and friction. Elsewhere, notably at Espiritu Santo, no satisfactory answer to the problem of coordination was forthcoming.

NEUROPSYCHIATRIC SITUATION

Consultant

Colonel Kaufman (fig. 42) was assigned to Headquarters, USAFISPA, New Caledonia, as neuropsychiatric consultant, and arrived on 26 October 1943. A medical and surgical consultant had been assigned to the Surgeon's Office in August 1943. With centralization of medical authority in the South Pacific Area, which allowed for a flexibility of function, the professional consultants participated in the professional activities of all echelons in the theater. This was especially important in planning operations and made it possible for the consultants to advise officially on medical activities of tac-

FIGURE 42.—Col. M. Ralph Kaufman, MC, Neuropsychiatric Consultant, South Pacific Area.

tical and other units. Thus, the neuropsychiatric consultant could take an active part in all phases of the psychiatric problem and accompany troops into combat.

Resources (December 1943)

Because the Bougainville operation took place almost immediately after his arrival, Colonel Kaufman was unable to make a survey of the facilities and personnel in the theater until late in December 1943.

As noted previously, the theater embraced the area from New Zealand to Bougainville and extended east to include the Fiji and Society Islands. On Bougainville, the 52d Field Hospital (two platoons, 280 beds) had just arrived, but with no assigned psychiatrist. The chief of medicine, who had some interest, handled the psychiatric patients. Later, it was possible to obtain the services of one of the psychiatrists who had been sent to Bougainville on detached service.

On Munda, New Georgia, was the 250-bed 144th Station Hospital. The Russell Islands had the 17th Field Hospital, 300 beds; the 22d Station Hospital, 250 beds; and the 41st Station Hospital, 250 beds. On Guadalcanal, the 500-bed 20th Station Hospital had no assigned psychiatrist; however, a neurosurgeon on detached service from the 21st Evacuation Hospital served as psychiatrist. The 9th Station Hospital, 500 beds, had an assigned psychiatrist, but not the 250-bed 137th Station Hospital. The 21st Evacuation Hospital, 750 beds, then staging on Guadalcanal, had no psychiatrist, even after it was on Bougainville. Eventually, these deficiencies were met partially through the assignment, for 30-day periods, of psychiatrists on detached service from other hospitals in the area. It was not possible to make permanent assignments until April or May 1944, after the combat, for the most part, was over.

The island of Espìritu Santo, which, like Guadalcanal, was in the line of evacuation, had two hospitals functioning and one hospital in the process of being established. The 750-bed 25th Evacuation Hospital functioned essentially as a general or station hospital, with one medical officer assigned to psychiatry. Although this officer had had no previous psychiatric training, he attempted to handle the psychiatric caseload which, at times, was heavy; as in other similar instances, this officer's main asset was an interest and accepting attitude toward psychiatric cases. The 122d Station Hospital, 500 beds, had been assigned one fairly well-trained psychiatrist. The 1,000-bed 31st General Hospital was in the process of being built, and had a single psychiatrist.

The island of Efate, in the process of being closed as a base, had the 48th Station Hospital, with Capt. (later Maj.) Lindsay E. Beaton, MC, as assigned psychiatrist. The caliber of medicine at this hospital was high.

With Headquarters, USAFISPA, in Nouméa, New Caledonia, were two general hospitals (29th and 8th) and three station hospitals (27th, 31st,

and 109th). The 29th General Hospital had an excellent psychiatric section under Maj. (later Lt. Col.) Howard P. Gilbert, MC, a well-trained psychiatrist; on the staff was Capt. Paul Haun, MC, one of the few psychiatrists in the theater certified by the American Board of Psychiatry and Neurology. The well-constructed psychiatric section served as a model for other hospitals and was also used extensively for the training of medical officers assigned to psychiatry. The 8th General Hospital, 1,000 beds, had one assigned psychiatrist. When evacuated for illness, this officer was replaced by one untrained in psychiatry.

The 500-bed 27th Station Hospital had a psychiatrist, but its physical facilities were inadequate until late in 1944, when the hospital was reconstructed. The 31st and 109th Station Hospitals, 500 beds, each had a single assigned psychiatrist.

In Auckland, New Zealand, the 1,500-bed 39th General Hospital had excellent facilities for the care of all types of psychiatric patients. After some preliminary difficulty, the psychiatric staff, headed by Maj. (later Lt. Col.) Warren T. Brown, MC, became one of the best in the theater. A good relationship existed between all the services, and a workable coordinated treatment plan was established, including excellent cooperation between the Red Cross and the psychiatric section.

On Fiji were the 18th and the 142d General Hospitals, the 750-bed 7th Evacuation Hospital, and the 250-bed 71st Station Hospital, each with an excellent psychiatrist. Since the Fiji base was in the process of being closed, the general hospitals and the evacuation hospital were moved.

In the Society Islands, the 8th Station Hospital, 250 beds, was situated on Bora Bora. It had a superior psychiatrist, 1st Lt. (later Capt.) Samuel D. Lipton, MC, who was later assigned to the 20th Station Hospital on Guadalcanal.

Physical Facilities

Physical facilities in the hospitals varied with the area. Conditions in the Tropics created problems in the building of psychiatric wards, especially closed wards for disturbed patients. In the most forward areas, the hospital wards consisted of tents, which made it difficult to handle such patients; nevertheless, under combat conditions, it seemed possible to handle even disturbed patients in ward tents. In the Solomons, one station hospital utilized ordinary ward tents for open-ward patients and for disturbed patients; the tents surrounded by a high wire fence gave the appearance of a prison pen. On Espìritu Santo, an evacuation hospital which functioned primarily as a general hospital had a psychiatric section completely surrounded by a high wire fence; the closed ward had a number of cubicles not unlike prison cells. In New Caledonia and New Zealand, the general hospital facilities were adequate and well constructed.

During the course of the following 10 months, working through island commands, it was possible to construct adequate psychiatric facilities and to eliminate, in many instances, their prisonlike appearance. In some instances, however, nothing could be done, primarily because the local command was unwilling to alter previous construction.

There seemed to be a certain fearful attitude toward disturbed psychiatric patients. Nevertheless, the theater surgeon cooperated to the fullest extent in any suggested hospital structural changes and made it possible for the neuropsychiatric consultant to participate in the planning of all new construction. The problems of ventilation and temperature in the Tropics necessitated a modification of ward structure, particularly for isolation rooms. Attempts to establish adequate recreational areas were moderately successful.

Open wards for the treatment of psychoneurotic and mild psychotic patients were essentially the same as the other medical or surgical wards; this similarity existed also where the hospital was under tentage. Generally, the wards were the prefabricated barracks type, with screened open windows and ventilating space. The closed wards were of the same construction except that the wire screening was reinforced with a heavy mesh screen. Isolation rooms presented a problem. Eventually, they were built of ordinary ½-inch plywood over timber with an adequate screened opening for good ventilation. In several hospitals, for example, the 25th Evacuation and the 31st General, airstrip steel matting was used in the building of isolation rooms, a type of construction that was reminiscent of prison cells. The closed wards in the 29th and 39th General Hospitals were large and roomy and the isolation rooms well constructed, with adequate ventilation.

The type of construction deemed necessary for security was in direct relation to the attitude toward psychiatric treatment. Generally, where the attitude was poor, emphasis was upon heavy construction. The practice of surrounding the whole psychiatric section by a high wire fence was discouraged. Eventually, a recreation yard was built in most hospitals; the space between two ward buildings, with a fence on either side, was utilized for this purpose. Attempts were made to modify prison appearance by planting vines and other trailers.

In December 1943, the number of isolation rooms for disturbed patients was definitely insufficient. Subsequently, a sufficient number of these rooms to house disturbed patients were constructed in each island base.

Statistical Data

Statistical services in the theater, in late 1943, were inadequate. Most of the data were obtained from the statistical health reports (WD MD Form 86ab), with the result that it was not possible to know the number of neuropsychiatric cases in the theater at any given time. An enlisted man was as-

signed to the neuropsychiatric consultant and, thereafter, adequate statistical data were obtained. Reports on evacuation also were sent periodically to the Surgeon General's Office in Washington, D.C.

To demonstrate the problems of diagnosis, treatment, and disposition, the following observations were made: [5]

1. It is not possible to obtain accurate figures concerning the neuropsychiatric load in this area for a number of reasons.

2. The total number of beds allocated to neuropsychiatric patients is difficult to obtain. The number of patients that a given hospital may be called upon to treat changes with the tactical situation and the factors in the line of evacuation. Therefore, the number of beds allocated, especially for so-called open ward cases, varies. In addition, in most hospitals there are many patients with primary diagnosis of psychoneuroses that are treated on the medical and surgical wards.

3. Also the psychiatric load is increased by the numerous consultations that the neuropsychiatrist is called to see. One estimate shows that approximately 14 percent of beds in a group of hospitals were allotted to neuropsychiatry.

4. A problem exists in evaluating the total number of neuropsychiatric admissions. A patient who is admitted to several hospitals, in the line of evacuation is counted as a new admission in each and is so reported. An estimate from a number of hospitals showed that approximately 11.24 percent of the patients were admitted with a neuropsychiatric diagnosis.

5. The evacuation by transfer to the United States shows that out of 22,726 patients, 6,574, or 28.93 percent, were neuropsychiatric. In most instances, this is the largest single group evacuated from a hospital.

6. Neurological problems, as such, are rather low, usually about 10 percent of the psychiatric. There is a definite shortage of neuropsychiatrists in this area. The table of organization does not call for a psychiatrist, as such, in many of the hospitals. Nevertheless, the psychiatric load is heavy and requires at least one or two medical officers to handle it.

7. An estimate of the needs shows that there is a shortage of at least 15 neuropsychiatrists in the area.

8. The functions of the neuropsychiatrist go beyond the mere actual treatment of the patients assigned to his section. He should participate in a well-integrated program of recreational and occupational therapy of all patients. In addition an important aspect of his assignment is concerned with morale. The prevalent attitude amongst patients is that they desire above all to go home, especially now that they have become hospitalized. This attitude is related to various factors and stems from faulty indoctrination and in many instances lack of orientation as to the issue and background of the war. In some cases faulty or inadequate leadership is in part to blame. There are many other factors in this situation which will be discussed in a separate report.

9. The psychiatrist in collaboration with the Special Service Officer, the Chaplain, and the Red Cross Workers must attempt to reverse the evacuation attitude of many soldiers. This is part of the task of the individual psychiatrist and can only be carried out by a well-trained man.

10. Frequently in certain areas the psychiatrist is called upon to function on various boards and court-martial. At times he has been utilized to screen combat teams before they embark for an operation.

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[5] Letter, Col. M. R. Kaufman, MC, Headquarters, Office of the Surgeon, to Brig. Gen. Earl Maxwell, Headquarters, USAFISPA, 29 Jan. 1944, subject: An Estimate of the Neuropsychiatric Situation in the South Pacific Area.

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Comment:

1. The neuropsychiatric problem is next to malaria, the largest single problem in the theater.

2. There is a need for more psychiatrists in the area.

3. More emphasis should be put on therapy and attempts at rehabilitation. Closer working relationship with the personnel and classification officers in each installation will facilitate proper classification and reassignment. This will be only fully possible when adequate personnel is available.

4. The psychiatrist should work in close collaboration with all morale-building agencies within the Army.

5. There is a need for more accurate statistical data to evaluate the neuropsychiatric problem.

NEUROPSYCHIATRIC DISORDERS, FREQUENCY AND CAUSATION

Pertinent data on the frequency and causation of neuropsychiatric disorders are contained in an Essential Technical Medical Data report [6] from which the material which follows has been extracted.

Among the many factors in the problem of psychoneurotic breakdowns within a combat unit, three should be mentioned as pertinent. The most important factor, of course, is the unit morale. Where morale is high, there is a definite conscious effort on the part of the patient to recover, to return to his unit, and to carry on with his job. In units where morale is poor, the opposite is the case, the desire being to escape and the secondary gain obtained by the illness is so great that it overbalances the scale in the direction of the symptoms.

The second factor is the attitude of line officers, noncommissioned officers, and soldier-associates toward the psychoneurotic problem. Organizations which have fostered a "hard-boiled" attitude toward psychoneurotic breakdowns have a higher incidence of these cases. The soldier, as tension and pressure develops, is unable to relax, becomes more tense, and fails to report his feelings to his associates and effective prophylactic measures then cannot be taken. Furthermore, when the symptoms develop, the soldier is adverse to returning to his organization, fearing ridicule and loss of prestige among his soldier associates. A full understanding of the problem by line officers and noncommissioned officers is of paramount importance. A sympathetic attitude toward the soldier returning to duty must also be present. This will abet the patient's willingness and desire to return to his organization as it allows his resumption of duty without "loss of face."

The third factor essential to such a program, as well as to an effective therapeutic plan, is a workable system of reclassification and reassignment within the unit. Frequently, this is difficult to get across to line officers since, necessarily, this means a constant shifting of personnel; however, to salvage these cases within their own organization, such a program is essential. Naturally, all line officers are anxious to have men of the highest physical and mental levels under their command, and they are sometimes reluctant to cooperate in reassigning these patients as they return to duty, and would prefer to "get rid of them."

In the 37th [Infantry] Division, the morale has been high. Line officers and noncommissioned officers understand the psychoneurotic problem and have uniformly cooperated in reclassification and reassignment problems, exhibiting a desire to salvage men within their organization. The unit commander and the unit surgeon of only one unit in

[6] Essential Technical Medical Data, U.S. Army Forces in the South Pacific Area, for April 1944, dated 1 May 1944.

the division were opposed to the return of psychiatric patients to duty, stating that they were of little value.

The 37th Division has been participating in the Bougainville operation since D-day. The initial invasion and establishment of a beachhead was met by only moderate enemy resistance. However, during the last 20 days of March, division forces have participated in intensive combat, of a primarily defensive nature.

For the 5-month period from 1 November 1943 to 1 April 1944, this division had a total of 247 neuropsychiatric patients treated in the division clearing station. Of this number, 87 (35 percent) were acute combat reactions, exhibiting the classical picture of tenseness, anxiety, tremor, startle reaction, psychosomatic conversion, and amnesia of varying degrees. The remaining 160 of this group were psychotics, chronic psychoneurotics whose life histories indicated longstanding neurotic difficulties, convulsive disorders, alcoholism, constitutional psychopathic states, and neurological disorders.

Of the combat reaction group, 80, or 92.0 percent, were returned to duty, some directly to combat units, and others to duty with division service troops. Of the other group of 160 patients, 60, or 37.5 percent, were evacuated from the island. For the most part, these patients in the latter group will probably be returned to the United States. The other 100, or 62.5 percent, were returned to some form of duty. Consultation with regimental surgeons in the division, with one exception as noted in a preceding paragraph, showed that patients returned to duty were effective, and were doing a good job within the unit.

The neuropsychiatric service of the 21st Evacuation Hospital on Bougainville submitted the following data for the period between 15 February 1944 and 3 April 1944. During this time, the hospital had a total of 327 neuropsychiatric patients admitted for further evacuation; of these, 34 were returned to duty, 259 were evacuated from the island, some for reassignment in the rear area, and 34 remained in the hospital. The unit breakdown of these patients is as follows:

Service Command Units	5
XIV Corps Unit	54
37th Division	53
Americal Division	215

The great discrepancy in the number of cases between the two divisions is being studied.

An analysis of 200 other cases disclosed that 43 (21.5 percent) of this group were returned to duty. In the selected group of combat reactions, 28.8 percent were returned to duty on the island; an additional 35.5 percent were evacuated for reassignment in the rear area; i.e., 64.3 percent of these patients were salvaged * * *.

Additional data on the neuropsychiatric caseload in the South Pacific Area are as follows: [7]

Since 15 January 1944, this office has been receiving daily Admission and Disposition sheets from all medical installations in this area. A study of these reports has enabled a fairly accurate estimate of the neuropsychiatric patient load to be made. The total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty [see appendix D]. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions and to evaluate the need for psychiatric and transportation facilities.

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[7] Essential Technical Medical Data, U.S. Army Forces in the South Pacific Area, for May 1944, dated 2 June 1944.

COMMENTS

(1) The neuropsychiatric caseload in the South Pacific Area, as evaluated in terms of final disposition diagnosis, represents 12.87 percent of all patients for the 3-month period reported.

(2) 46.03 percent of all cases evacuated to the United States are in these diagnostic categories.

(3) 50.32 percent of all neuropsychiatric cases admitted were evacuated to the continental United States.

(4) There has been a decrease in the percentage evacuated as between January and April 1944.

(5) The number returned to duty averaged 49.68 percent of all neuropsychiatric cases.

(6) There has been an increase in the percentage returned to duty during each month of the reported period. 63.54 percent of all neuropsychiatric patients were returned to duty in April. This sample, however, is not an adequate one on which to base any conclusions. The change in War Department policy concerning utilization of manpower, and the constant emphasis in this theater on therapy and salvage of manpower may have some bearing. Subsequent figures will be of value in determining the trend.

(7) The largest single category within the group consisted of psychoneuroses, which form 49.68 percent of the total neuropsychiatric cases, 57.69 percent of all evacuees, 61.05 percent of all transfers, and 45.54 percent of all patients returned to duty.

(8) Neurasthenia, a diagnostic label which seems to have a somewhat different connotation from that of psychoneurosis, represented 2.44 percent of all evacuees, 2.45 percent of transfers, and 14.49 percent of all duty cases.

(9) Approximately 16.50 percent of all cases dispositioned to duty or to the continental United States were psychotic. It is not known how this compares with other theaters but it appears to be somewhat high.

(10) The neurological problem in this area is moderately great, especially in the group returned to duty, representing 24.86 percent. This indicates the need for neurologists or neurologically oriented psychiatrists on each island base.

* * * * * * *

During 1944, the number of patients returned to duty increased because treatment was emphasized; yet psychiatric patients were definitely looked upon as ineffectual, and many commanding officers did not want the return of such patients. With the change in reassignment and manpower conservation policies, SOS units gradually became saturated with soldiers placed on limited assignment because of neuropsychiatric reasons. Then, as the South Pacific Area become more and more of a rear area, it received patients from both the Central Pacific and the Southwest Pacific Areas. This resulted in increasing neuropsychiatric rates per 1,000, based on troop strength, which created difficulty in reassignment within the theater (appendix D, table 10). Liaison with G-1 (personnel) of the headquarters and with personnel of the replacement depot was of some value in reassignment, but in retrospect, the policy of reassignment was never a brilliant success. However, it was definitely possible within this theater to reassign a fair number of psychiatric patients, especially after WD (War Department) Circular No. 293 was issued.[8]

[8] War Department Circular No. 293, "Enlisted Men—Utilization of Manpower Based on Physical Capacity," 11 Nov. 1943.

POLICY AND TECHNICAL INSTRUCTIONS

Beyond the general policy statements of the Surgeon General's Office, the South Pacific Area had no specific theater policy or technical instructions on neuropsychiatry. Although this theater covered a large area, the number of installations were relatively few; thus, it was possible, by continual visits, to carry on a consecutive educational program. A few formal statements of policies were issued through letters or by instructions. Theater policy was eventually established in February 1944 by a medical circular letter (appendix E) on the subject of neuropsychiatric patients. This policy was to make each island base as independent as possible in the treatment and care of psychiatric casualties.

The American Red Cross participated actively in many areas of function throughout the theater (fig. 43) and maintained a close working relationship with the Neuropsychiatric Division of the theater Surgeon's Office. In many situations, individual Red Cross workers showed a good deal of imagination in creating programs in various hospitals.

FIGURE 43.—Psychiatric patients, 112th Station Hospital, SPA, spending their leisure time making such items as billfolds, ashtrays, and knitting bags, which is part of the American Red Cross program at the hospital, 16 August 1944.

PERSONNEL

Psychiatrists

An initial survey showed that 19 medical officers were assigned to psychiatric sections, but at least 15 additional psychiatrists were necessary to fulfill minimum needs. Of the medical officers assigned, perhaps four were qualified by previous training to function as neuropsychiatrists. The others, for the most part, had had very little or no training in neuropsychiatry in civilian life. Nevertheless, they were all interested in their work and, within the limitations of their training, did a competent job.

Hospital tables of organization were inadequate. A 1,000-bed general hospital should have had a minimum of three psychiatrists, and a 750-bed station hospital at least two. The overall shortage of psychiatrists in the Army was reflected in the theater by the fact that none could be obtained by requisition from the continental United States. To compensate for this deficiency, a shifting of psychiatric personnel from hospital to hospital was accomplished on the recommendation of the neuropsychiatric consultant.

Attempts were made to overcome the lack of training of psychiatrists and ward personnel by teaching programs during visits of the neuropsychiatric consultant. Also, ward rounds, discussions, and neuropsychiatric conference groups were instituted on each island. Then, a more general educational program for all medical officers was established in the theater, and courses in psychiatry with on-the-job training for periods of 6 weeks to 3 months were organized. This was of particular value for division psychiatrists who were mainly medical officers untrained in psychiatry. The men chosen had been medical officers with the division for some time. All were familiar with some of the psychiatric problems in a tactical unit, and had some interest in psychiatry as well as a good relationship with line officers. Some of these division psychiatrists were assigned to general hospitals for training.

Frequent visits from the neuropsychiatric consultant to the divisions, plus the discussion of problems and techniques, were profitable. Medical officers in the theater were evaluated by the professional consultants according to specialties and training. Usually, any medical officer who had had any training in psychiatry was assigned to a psychiatric job. The difficulty lay not in misassignment but, to repeat, in the lack of psychiatrists to assign.

Neurologists

There were perhaps two trained neurologists in the theater. The neurological caseload approximated 10 percent of all neuropsychiatric conditions. The lack of trained neurologists was reflected in the type of neuro-

logical disease being diagnosed as ill-defined conditions of the central nervous system. It became necessary to emphasize the need for recognition of the presence of neurological symptoms and signs.

Ancillary Personnel

Nurses.—There were few nurses who had had any previous experience in the handling of psychiatric cases. Since it was not until 1 April 1944 that nurses were allowed north beyond the New Hebrides, ward care was provided by enlisted medical wardmen, few of whom had had any experience in the handling of psychiatric cases. The effectiveness of both nurses and medical wardmen depended to a great extent upon the attitude of the psychiatrist in charge and of the commanding officer. One of the major difficulties lay in the constant shifting of personnel, a practice which seemed to be more prevalent in the neuropsychiatric section than in the other services of the hospital. After several months of training, wardmen and nurses would be reassigned to other services. This condition was partially alleviated during 1945 as a result of discussions with the commanding officers, who came to recognize the need for relatively experienced ward attendants. Training programs were established in most of the hospitals for this type of personnel.

Psychologists.—With one or two exceptions, no psychologists functioned as such in the hospitals. Several enlisted men with some training in psychology were utilized as assistants to the psychiatrists.

Psychiatric social workers.—Wherever possible, enlisted men already in hospitals, who had had some training as social workers, were utilized as assistants to the psychiatrists. They also functioned as combination ward attendants and caseworkers.

HOSPITALIZATION

No figures were available in this theater as to the average hospital stay. The tendency, however, was to prolong hospitalization even for those patients who were to be returned to duty. Psychiatric patients who were scheduled for evacuation to the United States, particularly in the closed-ward type, had to be held for extended periods, owing to lack of transportation.

In the South Pacific, the islands stretched out for 2,500 miles. Evacuation by ship was possible from New Zealand, New Caledonia, and, later, from New Hebrides, but only late in 1944 was it possible from Guadalcanal. This necessitated holding patients in the forward islands until shipping space was available, after which the patients were sent to New Caledonia or New Zealand and there to await transshipment to the United States. Although shipping space was more readily available for psychoneurotics, it was often a wait of several months before psychotic patients

could be transported. When air evacuation was inaugurated, the transportation situation improved considerably. Hospital ships especially constructed for the transport of psychiatric cases would have been of great value, and such recommendations were made to the Surgeon General's Office.

Because of the distances involved, an attempt was made to make each island psychiatrically self-sufficient. Then, when evacuation by sea from the Solomons became possible, the situation was further eased. Nevertheless, throughout the whole SPA period, hospitalization holding time for patients to be evacuated was overly extended.

Organization Within Hospital

As already stated, the psychiatric section was a component of, and thus under, the medical service. Although this arrangement worked out fairly well in most instances, problems in administration arose when chiefs of medicine were unfavorable toward psychiatry. The lack of training of most psychiatrists and, in some instances, their lack of prestige also created difficulties. However, personal contacts by the neuropsychiatric consultant with the chiefs of medicine, together with interpretations and discussions of the psychiatric problem, made it possible, usually, to achieve good working relationships. A trend was instituted whereby the psychiatrist was permitted to handle his section without too great interference.

In the South Pacific, no special treatment center for psychotic patients was ever established. This was due to the lack of professional personnel and also to the geographic situation. However, constant emphasis was placed upon treatment—both on an individual and a group basis—regardless of ultimate disposition. As a rule, the general hospitals had excellent treatment programs.

Equipment and Supplies

There was a lack of equipment for the psychiatric wards. Continuous tubs were not available in any hospital, even in the rear area; equipment for occupational therapy and recreational activities was at a minimum. Later, this situation was improved considerably, especially through the efforts of the Red Cross. In the new hospital construction, facilities for occupational therapy and recreational activities were included, and by the middle of 1944, most of the hospitals had either tents or buildings especially for such programs. It was difficult to obtain supplies through Army channels; however, many of the sections working with the Red Cross procured salvage material and tools from airfields and other installations.

MORALE

During the latter part of 1944, the psychiatry program had a close relationship with the Information and Education Section. Group discussions, current events classes, and other aspects of the information and education program were definitely utilized for therapeutic purposes. The cooperation of the Information and Education Section and the theater Surgeon's Office was exemplified by the reproduction and distribution of two magazine articles related to morale.[9]

On the whole, the effect of the therapeutic program was spotty. An almost universal desire to go home permeated the atmosphere of the theater. Therefore, a good deal of effort, with only moderate success, was directed toward building morale.

The factors that enter into morale, particularly in a community as varied as the Army in an overseas combat theater, are exceedingly complex. The multiplicity of variables includes such factors as initial personality; attitude toward mission; type of organization; relationship to buddies, noncommissioned and commissioned officers, and command and command decisions; geographic location; length of time in any particular place or in combat; impending combat; lack of combat; attitude toward the war; and position in the hierarchy. Therefore, in evaluating morale in the Pacific, one can only give an impression of those aspects that were general and those related to specific situations.

Medical Officers

One of the most important and significant morale problems was in relation to the medical officers. This is best epitomized by a report of 27 January 1944,[10] which follows.

During a tour of the theater, which included visits to most of the hospitals and field units, the following impressions were received:

1. Professionally, with rather few exceptions, the standards of medical practice are fairly good. In some cases, they are exceedingly high.
2. The attitude of a large number of medical and dental officers, especially amongst those who have been in the theater or in overseas service for a year of more, is that they should be rotated back to the continental United States.
3. The attitude is of varying depths, from a mere homesickness and desire to see one's family, to a rather malignant type of "we want to go home, no matter what the situation is."
4. Various reasons are given:
   a. The most frequent is that a year or more is too long to be stationed in the Tropics.

[9] (1) "Psychiatric Toll of Warfare," Fortune Magazine, December 1943. (2) Maisel, Albert Q.: "Out of Bed—Into Action." Reader's Digest, December 1943.

[10] Letter, Lt. Col. M. R. Kaufman, MC, Neuropsychiatric Consultant, to Col. Earl Maxwell, Headquarters, USAFISPA, 27 Jan. 1944, subject: Factors in the Morale of Medical Officers, South Pacific Area.

b. That there are more than enough medical officers stationed in the United States who could be sent out as replacements.

c. Officers who have served in field units feel that the burden of war has been put on them and would like to be returned home or rotated within the area to hospitals.

5. Those in the rear areas would like to be stationed in a forward area and/or be returned home.

6. Many refuse to evaluate the situation realistically and feel that everyone in the theater, after a certain amount of service, should be returned.

7. There is some feeling about the apparent lack of promotion for officers overseas. Many state that classmates, officers with less professional experience, etc., have been promoted while in the United States, whereas they and others overseas have not received the recognition they feel they deserve.

8. There is some feeling that full utilization of their professional experience is not being made. As a general rule, the medical officer who has had some special training or feels particularly capable in a branch of medicine, feels he should be given an opportunity to utilize his knowledge. This regardless of the needs of the service.

9. In many instances, this desire to go home prejudices the judgment of the medical officer and is demonstrated in the attitudes of nurses, medical detachment, and patients.

Negro Troops

Another explosive morale issue was in relation to the Negro troops, which was not unique for the South Pacific Area.[11] In a memorandum to General Maxwell, 22 March 1944, in relation to the 93d Infantry Division, the neuropsychiatric consultant illustrated the extent and character of various problems:[12]

1. The 93d Infantry Division presents a situation from a psychiatric point of view that is different in many ways than the usual problem met within a division.

2. This is an all Negro division, 70 percent of whose officers are colored, with the exception of five medical officers and one chaplain, who are of field grade. All the others are of company grade. The data were obtained through series of personal interviews with officers of the General Staff, the Surgeon, Chaplain, Negro Medical Officers, the Division Psychiatrist, the Chief of Staff and Regimental Commander, amongst others.

3. The general consensus * * * with the exception of the Chief of Staff, was that the morale was low and there were many psychiatric problems in the division. In fact this was attributed to the fact that there are only twenty-one (21) [Grade] one (1) [highest level of intelligence] A.G.C.T. [Army General Classification Test] men in the entire division. The greater percentage are in Grades IV and V [two lowest levels of intelligence] of that classification.

4. In addition to the ordinary problems which occur in any division, this one has an important peculiar problem; namely, the question of color. It seems from the interviews with both white and Negro officers that everything that occurs in the division is slanted through the perspective of the racial question.

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[11] (1) An excellent postwar article by Lt. Col. Herbert S. Ripley, Jr., MC, and Maj. Stewart G. Wolf, Jr., MC, appeared in the *American Journal of Psychiatry*, January 1947. Both these officers had been attached to the 9th General Hospital in the Southwest Pacific. The very title of the article, "Mental Illness Among Negro Troops Overseas," illustrates the psychiatric implications of morale.—M. R. K., and L. E. B. (2) Similar morale problems of segregated Negro troops of the 92d Infantry Division occurred in the Mediterranean theater, pp. 88–89.—A. J. G.

[12] Memorandum, Lt. Col. M. R. Kaufman, MC, Consultant Neuropsychiatrist, for Brig. Gen. Earl Maxwell, Headquarters, USAFISPA, APO 502, 22 Mar. 1944, subject: Psychiatric Problem in the 93d Infantry Division.

5. Reports, especially from the Negro officers, indicate that the morale of all troops is extremely low. There are numerous indications of this. Sullenness and resentment are reported. There is a wide present feeling amongst colored officers and men that they are being discriminated against in every possible way.

6. The officers of company grade feel that they are not receiving adequate recognition, that they are limited by policy as to promotion. They resent what they consider discrimination by the white officers against themselves. Although it is recognized by the colored officers interviewed that this attitude may not be altogether a valid one, they feel that it nevertheless exists and that it interferes definitely with the effectiveness of the outfit. This ineffectiveness shows itself in many ways; their own term for it is "passive resistance to policy."

7. In fact, according to those interviewed, that policy is commonly and openly discussed by both men and officers. Even those colored officers who apparently appreciate the situation feel extremely bitter at times and tend to deal with many problems purely on a subjective basis.

8. These officers state that they are aware that definite threats have been made, that when in combat some of the white officers and some of the colored ones "will be dealt with," "that the complexion of the officer staff will change." There is an underlying feeling of constant tension as between the Negro officers and men and the white officers.

9. Some Negro officers openly express before their men contempt and hostility toward some white officers and that of the white race in general. There is no interest in the war and war aims. There is a feeling according to those reporters that "this is a white man's war and is of no concern to the Negro race." There is also a feeling that in spite of expectations to the contrary, the morale of the troops has become lower since embarkation. The imminence of combat has resulted in a tremendous increase in sick call, with many problems of a psychiatric nature coming to the fore. Figures in this will be made available in a short time.

10. Open resentment and hostility has increased, and in the opinion of the colored officers interviewed, the troops are not psychologically ready for combat. These officers, through the interviews, expressed grave fear as to what might happen in combat. They felt that many of the troops would not fight except "to save their own skin." They anticipate that a large number of anxiety and panic reactions would be seen. Added to the general resentment in regard to alleged discrimination, there were assertions against specific but unnamed officers. The general tenor of which was that their officers treated the Negro troops and officers with deliberate unfairness.

11. Disciplinary problems occur with great frequency. It is the general opinion of all officers that disciplinary action is of no avail; that the troops and some of the colored officers welcome court-martial and reclassification proceedings in order to get out of the outfit or the Army. Many of the Negro officers openly express their wish to be reassigned, reclassified, and in some instances to be discharged.

12. Although the Division Psychiatrist has only been with the division for a very short period of time, his evaluation of the attitudes present concurs with the opinions expressed by the other Negro officers interviewed. He anticipates a great many psychiatric problems within the division. Major Charles [Andrew] Smith, now the Psychiatrist at the 109th Station Hospital, APO 502, had an opportunity to work with this division for 16 months in the United States. He reports that 6,000 men from the division were discharged for primarily psychiatric reasons, sometime prior to embarkation.

13. In interviews with Staff Officers, it was stated that in their opinion the morale of the troops is extremely low, that they had no desire to fight and that there has been a noticeable lowering of morale since coming overseas.

14. In their opinion, the average mental ability of the troops is low, as borne out by the A.G.C.T. grading. They feel the open hostility and resentment. They concur that there is a wide spread passive resistance throughout the division. They have no con-

fidence whatever in the men or many of the colored officers. They feel that the outfit is unsuited for almost any kind of military duty, especially combat duty.

15. There is an open expression of resentment at being assigned to the outfit and a feeling that in spite of everything that they have attempted to do, it has been impossible to accomplish anything with the division. There is a good deal of obvious tension amongst these senior officers. Some of them stated that they belonged to the "Legion of the Condemned"; there is open discussion as to whether or not the troops would carry out the threats made when they are in combat.

16. In the opinion of these senior officers the white company officers are emotionally upset at the "hopeless situation," that all of them wish to be reassigned, and that many of them have expressed the desire to get out even through a reclassification procedure. In the opinion of all white officers interviewed, the actual and potential psychiatric load in this division is overwhelming. They, too, anticipate widespread panic and anxiety reaction under combat. There is definite dissatisfaction with the command, which in many instances is openly and freely expressed.

17. In an interview with the Chief of Staff, he expressed the opinion that since the outfit has come overseas the morale has improved 500 percent and that it compares favorably with other divisions who have had comparable training. He feels no doubts as to the combat efficiency of the outfit. He recognized the presence of some psychiatric problems, but does not feel that they are too great.

18. In an interview with a regimental commander, the officer noted that, as far as his own regiment was concerned, the morale was adequate, that he felt the troops under his command were ready for combat. He stated that he realized that many problems existed, but he felt that they were being handled effectively in his own organization.

The following later report of the division psychiatrist, 93d Infantry Division, is of interest in view of the discussion of morale in that division: [13]

1. The general impression concerning the morale in this C.T. [Regimental Combat Team] is in line with the previous report rendered to the Division Surgeon, dated March 21, 1944.

2. Enlisted men and officers interviewed on a survey in the forward area generally gave the following impression:

There was an elevation of morale upon being sent into combat, officers and men both being anxious to experience actual combat. Such praise as this CT has received has also acted as a stimulus. A very important factor that was mentioned was the friendliness and cooperation that the CT has received from veteran troops, who have worked and fought side by side with the CT in contrast to the attitude of white officers and troops in the past.

Factors tending to lower the morale—(1) difficult terrain over which the troops must fight and pack supplies, (2) harassing tactics of the enemy, (3) attitude toward some officers, and (4) punitive measures.

The first two conditions are obvious and common to any battle situation. The other conditions can be further elaborated.

Some line officers (mostly Junior Officers) feel that (a) they are sent out on patrols too often, (b) that the officers of higher grades do not take the risks they do.

Officers and enlisted men have complained that their mission was not sufficiently explained to them before setting out on it.

Under the heading of punitive measures, patrol duty is said to be used as a punitive measure. The men who go on patrols in line of duty do not appreciate this.

[13] Report, Capt. George W. W. Little, MC, Division Psychiatrist, Headquarters, 25th Infantry Regiment, 93d Infantry Division, to Division Surgeon, 93d Infantry, 26 Apr. 1944, subject: State of Morale Within the 25th CT.

To what extent this punitive measure is used, I do not know, but if it is practiced I consider it bad psychology. Patrol duty should be limited to the best soldiers and should carry with it a certain amount of distinction. The attitude to be attained is "you are selected to go on patrol because you are a good soldier" rather than "if you do not behave you will be sent on patrol." (And the soldier thinks: and maybe be killed!)

SCREENING PROGRAM

The relationship between morale and neuropsychiatric conditions had been demonstrated over and over again in all theaters. An opportunity presented itself to set up a screening program for the 43d Infantry Division. Maj. Gen. Leonard F. Wing, Commanding General, 43d Division, during the course of a discussion on morale and its related problems, showed great interest in the establishment of such a program. The following describes the evolution of the screening program for the 43d Division and the results achieved: [14]

* * * * * * *

Since this [43d] Division was in a process of being rehabilitated and readied for combat in New Zealand, it was decided to initiate a program of neuropsychiatric screening, classification, and reassignment to take place concurrently with a program of what might be called morale building. It was felt that such an intensive project was necessary to reestablish this Division as an integrated combat team and to prevent a recurrence of the previously high combat neuropsychiatric casualty rate.

A psychiatric screening board consisting of three psychiatrists was appointed. Two members of this board were psychiatrists from hospitals stationed in New Zealand, assigned on detached service with the division. The third member was the division neuropsychiatrist. The neuropsychiatric consultant outlined the program and acted in an advisory capacity.

All regimental, battalion, and company officers through S–1 and Unit Medical Officers submitted the names of all men considered to have any type of personality, psychiatric, or disciplinary problem. There was no restriction as to the type of soldier seen. The only criterion was the fact that the officer felt that the soldier should be evaluated. Medical officers referred any soldier whom they considered to have any psychiatric problem. All soldiers on whom a previous psychiatric diagnosis had been made during the New Georgia campaign were reevaluated.

A comprehensive report, including the reason for referral, a statement of the soldier's efficiency, symptoms, if any, and recommendations by the referring officer as to the type of duty the soldier was considered capable of performing, was submitted at the time of referral. All soldiers were then interviewed by the Board and where additional information was required it was obtained from the appropriate source.

Before final recommendations were made, the soldier's unit commander was seen and the situation discussed with him. The Board worked closely with G–1 and S–1 personnel and classification officers. The following types of recommendations were made:

(a) Return to duty.
(b) Reassignment within the Unit.
(c) Reassignment within the Battalion.
(d) Reassignment within the Regiment.
(e) Reassignment within the Division.
(f) Reclassification and Reassignment outside the Division.

[14] Memorandum, Office of the Chief Surgeon, USAFISPA [April 1944], subject: Psychiatric Screening of the 43d Infantry Division.

(g) Hospitalization for appropriate disposition. The procedures served to circumvent the hospitalization of many soldiers, effected the evaluation of individuals with a minimum loss of time, and resulted in the saving of hospital beds. All soldiers in need of hospitalization thus had a preliminary study by a psychiatrist in the field.

A program of screening a Division, in itself, is insufficient to achieve the desired result of creating and maintaining a high level of efficiency as a combat team. This process of screening has to be a continuous one and should be correlated with an intensive program of what might be termed morale-building. This aspect of the program was initiated through a series of discussions held with all officers of the Division.

The Consultant Neuropsychiatrist met with the officers of the Headquarters staff, all Regimental and Battalion commanders. In addition, twelve other meetings were held at various headquarters. In this way all officers, including medical officers, of this Division at the time had an opportunity to listen to and discuss the program. These discussions centered around an explanation of the aims of the program, the technique for carrying it out, with emphasis on the two phases of screening and morale-building.

The discussion with each group also emphasized the following:

(a) Neuropsychiatric problem in the Army.

(b) Common types of psychological reactions during training and combat.

(c) The recognition of early symptoms of psychiatric conditions.

(d) Factors in morale.

(e) Psychological aspects of leadership.

(f) Orientation and education for troops.

(g) Preventive psychiatry.

(h) The organization of an orientation and education program in conjunction with Special Service; a recreation program in collaboration with the Red Cross and Special Service.

(i) The utilization of Chaplains, Red Cross and other agencies within the Division. The psychiatrists assigned were professionally competent. They lived with the individual units during the time they interviewed the men. The contacts they established, especially with the junior officers, offered opportunity to discuss the various aspects of the problem both with individuals and small groups.

The whole-hearted cooperation of the Division Commanding General and his Staff did much toward the successful completion of the project.

The psychiatric screening board interviewed approximately 600 men. Of this number about 200, or 33 percent, were returned to duty; 114, or 19 percent, were recommended for reassignment within the Division; about 250, or 42 percent, were recommended for reassignments outside the Division; and about 36, or 6 percent, were hospitalized. Those returned to their present duty and those reassigned within the Division in many instances were benefited therapeutically by the interview, since it gave them an opportunity to discuss some of their personal problems and it demonstrated that an interest was being taken in their problems by the command. The cooperation of G–1, USAFISPA, in reassigning soldiers who were deemed unsuitable for even noncombat duty in a combat division, was of tremendous value. The problems of adequate assignment as emphasized in many War Department publications is a difficult one to solve in many instances. It is only by such cooperation by various echelons that it can be achieved. Within the Division there was splendid cooperation between G–1 personnel and classification officers and the screening board. As a direct result of the experience with this project, a Reassignment and Reclassification Board has now been appointed within the 43d Division. The two principle members are the Division G-1 and the Division neuropsychiatrist.

Attention should be drawn to the relatively small number of cases referred for hospitalization. A report by the liaison officer between the 43d Division and the 39th General

Hospital shows a total of only 39 patients with psychiatric or neurological diseases admitted to the hospital. This figure does not, however, represent the total number of such admissions, since many soldiers on other hospital services also presented neuropsychiatric difficulties. In some instances the screening board requested that patients with psychosomatic symptoms be admitted for medical or surgical clearance to rule out organic disease. Such patients while in the hospital were seen routinely in consultation by the hospital neuropsychiatrist. On the whole, comparison with the number of hospital cases seen in a previous resting Division, showed that less than half the number of such cases were hospitalized from the 43d. This is of some importance in decreasing the neuropsychiatric case level in a hospital serving a resting Division. Many of the soldiers interviewed by the screening board would ordinarily have been admitted to a hospital for evaluation. This is especially true of the group recommended for reassignment outside the Division.

The type of problems encountered varied a great deal. The soldier, especially in the group returned to duty, presented predominantly minor personality disorders. The screening demonstrated that many of the soldiers on whom a diagnosis of "War Neurosis" had been made during the New Georgia campaign had subsequently functioned capably. This group was particularly benefited by the opportunity to discuss their problems with the psychiatrist. The hospitalized group consisted of severe psychoneurotics with some psychotics. The group that was recommended for reassignment to noncombat duty outside the Division consisted, for the most part, of cases of psychoneurosis, with a number of constitutional psychopathic states.

The excellent report of Capt. [later Lt. Col.] John J. Mohrman, MC, Division Neuropsychiatrist, on the first 445 soldiers [excerpts presented in appendix F] was circulated to all officers within the Division, and brings out in greater detail the various aspects of the problems encountered. The project proved worthwhile in many ways. Soldiers on the whole seemed eager to be interviewed by the board. The fear that they might feel stigmatized proved groundless. They wished to discuss their personal problems rather than to avoid service. This seemed to be especially true of the group on whom neuropsychiatric diagnoses had been made during the New Georgia campaign. Recommendations for reassignments were carried out wherever possible within the Division. Cooperation between G–1 and the board was close and wholehearted. Such cooperation is not only possible but necessary in all units to carry out the letter and spirit of the War Department policies.

The educational value of the procedure was great; one of the most difficult aspects of the neuropsychiatrist's work is to demonstrate the value of a psychological attitude to line officers as well as to other medical officers. This was successfully accomplished by the members of this screening board. Personal communications from the Division staff were uniformly enthusiastic as to what had been done in this direction. The Division Neuropsychiatrist was given the opportunity to discuss with the officers in the Division Schools the many aspects of the relationship between morale and psychiatry. There was also an opportunity to discuss such problems with small groups of officers with whom the Board billeted during the course of the screening.

The project was successfully accomplished in all ways. The members of the Psychiatric Screening Board were commended by the Commanding General of the Division for the excellent way in which they carried out this mission.

The most appropriate time to carry out such a Screening Program for a combat unit in a theater of operations is during a period when the unit is being rested and rehabilitated after combat experience. The soldiers have been through the ultimate test of adaptability, namely combat, and a more comprehensive knowledge of the capacity of the individual soldier is possible.

COMBAT PSYCHIATRIC PROGRAMS

General Maxwell, an outstanding senior medical officer, not only listened to but also took the advice of his professional consultants in matters of their competence. Under these happy circumstances, the neuropsychiatric consultant in the South Pacific Area was in a position to plan and carry out programs which were of the greatest professional value to the theater.

The most dramatic and, in many ways, the most satisfying aspect of the psychiatrist's function was during combat operations. Unfortunately, it seemed as if all the lessons of World War I were either completely unknown or forgotten. There was practically no knowledge of, and very little planning for, the diagnosis and treatment of combat reactions in the Pacific during the early campaigns. The Guadalcanal campaign was of the utmost significance from a strategic point of view and, in many ways, from a medical one.

Guadalcanal [15]

Physical facilities.—No special neuropsychiatric facilities as such were available on our arrival on Guadalcanal. The medical setup was what the TO (table of organization) called for in an infantry division (Americal). There were some modifications which were improvised in accordance with the special demands of a new situation. The TO called for a medical regiment, of which the 3d Battalion consisted of the hospital or clearing companies. The original forces from the Americal Division consisted of a division brigade sent in advance of the rest of the division. The advance group left New Caledonia on 31 October 1942, and arrived on 12 November 1942. The medical troops which accompanied the brigades consisted of the usual battalion aid stations and a section of the medical regiment. This section had been improvised into a vertical unit and was designated the 3d Battalion. The hospital section was set up as a "field hospital." (Later it was divided into parts so that two "field hospitals" could be established.)

The "field hospitals" were, in reality, improvised from the TO clearing station. Ward tents were used to house the patients, and several pyramidal tents were set up for surgery. Because of the small area on the "canal" which was held by our troops—an area about 2 x 4 miles—the hospital of necessity could not be established very far behind the frontlines; and in fact, until the offensive was able to push the perimeter, the hospital was 1 to 2 miles from the front.

While much thought and preparation went into planning for surgical

[15] Dr. Martin A. Berezin, who contributed the material for this section from his personal experience as a lieutenant colonel in the Medical Corps, served in many capacities with the Americal Division—battalion commander, acting division surgeon, medical inspector, and psychiatrist. The account, presented in a personal style, is an excellent presentation of the psychiatric situation on Guadalcanal.

care, I do not believe that any at all went into considerations for neuropsychiatric casualties.

Even for our surgical patients, the combat situation was such an unknown that it was difficult, if not impossible, to be able to plan adequately for evacuation and disposition. It was not until after our arrival that arrangements could be made to fly certain patients for evacuation to the New Hebrides.

In addition to hospital beds and surgical tents, provision had to be made for underground shelter not only for medical personnel but also for patients. One of the first tasks was to complete the dugouts for there were nightly air raids with bomb dropping by the enemy. Because it was realized that many casualties would obviously be incapacitated and be unable therefore to make their own way to underground shelter, arrangements were made for teams of medical personnel to carry such patients to the shelters. As it turned out later, neuropsychiatric patients, even though not physically incapacitated, sometimes required assistance to get to the dugouts.

Training.—In addition to my other duties, I was the only psychiatrist on Guadalcanal. My training, at that time, had consisted of 2 years' residency at a State hospital. I knew next to nothing about neuropsychiatric combat cases and was not prepared by my training to manage them. Whatever I did for treatment and disposition later came about as I learned from day to day experience.

The training of enlisted personnel for the care of neuropsychiatric cases was nil. Again, we had to train men on the spot.

In fact, at that time, the situation insofar as psychiatry was concerned was so inadequate that not only were the medical personnel unprepared for what happened later, but we failed also to prepare our line officers for the incidence of psychiatric breakdowns which came to us. By reason of this near total inadequacy, many incidents occurred which otherwise could have been avoided.

The casualty situation.—Original estimates before the offensive began placed the number of expected casualties at not more than 100 the first day. This proved to be totally incorrect. Twenty-four hours after the offensive began there were 350 casualties. Neuropsychiatric casualties had not been considered, as just mentioned. My best recollection is that one-third of the total casualties were neuropsychiatric cases, which represents the same percentage discovered in other subsequent casualty assessments in various theaters and various campaigns.

The sudden flooding of the field hospital with this number of casualties taxed all medical personnel, but unexpectedly we were faced with the new problem of the "NP" cases.

Problems and difficulties.—Initially, line and command officers presented no opposition toward the concept of a psychiatric diagnosis. (For-

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tunately, the psychiatric casualties were protected by the fact that the division surgeon was understanding of psychiatric disability and was cooperative with the psychiatrist—both being the same person—me!)

When the various line officers were notified that some of their men in the casualty lists were diagnosed as neuropsychiatric or "psycho" cases and were considered unfit for duty, a stir was created. Many officers insisted that such casualties be returned to duty immediately; others threatened court-martial action on such men; others insisted there was no such diagnosis and that it was pseudomedical.

While such reactions, retrospectively, can be better understood in terms of resistance, it should be noted in fairness that, first of all, the line officers were ill-prepared to expect and understand neuropsychiatric casualties as such; second, another factor was operating, which must be weighed against the external situation in which the neuropsychiatric case was diagnosed.

At the time of the Guadalcanal offensive, many men had already come down with malaria despite Atabrine (quinacrine hydrochloride) prophylaxis. The infectivity rate was 1 : 10; that is, one mosquito bite in 10 contained the malarial organisms. Because of the malarial fever and all its other symptoms, many men were returned from the frontlines to our field hospital. It became quickly apparent that the greater enemy was not the Japanese soldier, but the mosquito, for the disability rate due to malaria could reach such proportions that in a few days the frontlines would be depleted. Consequently, because of the urgency and the danger of the situation, an order was sent out that, unless his temperature was over 103° F., the soldier was to remain on duty and that this order was to be in effect until sufficient replacements might arrive on the island. In the face of this order, it was very difficult to accept an externally healthy appearing soldier labeled "NP" as unfit for combat duty.

As a result of the pressure from the line officers (as well as our own uncertainties) to return these NP-labeled men to combat, an agreement was reached. This agreement was that the soldier in question would indeed be sent back to frontline service with the prediction, however, that he would not last; that is, he would soon break down again. In fact, that is what happened. The soldier was returned to his officers; he soon broke down and, again, was in the hospital with his neuropsychiatric disorder. Some of the line officers learned that it was useless to fight the concept of neuropsychiatric cases and permitted the medical care necessary. Others still remained resistant, and as it sometimes happened, a soldier might be returned to duty three times before his commanding officer acknowledged that the soldier in question was indeed unfit for combat and that, furthermore, he sometimes constituted a distinct menace on the frontlines. Some officers pleaded for us to remove such men because they recognized the danger of such patients adversely affecting other soldiers.

Eventually, the line officers came to learn and understand, at various levels of understanding, the significance of neuropsychiatric disorders and accepted the medical diagnosis. There always remained, however, a considerable grumbling about such cases, and punitive attitudes toward them persisted even though officially the line officers involved were cooperative.

Retrospectively too, there was another factor which contributed to the line officer attitude. It must be remembered that we were the first army troops to arrive on the island with the purpose of relieving and assisting the 1st Marine Division. The exploits of this Marine division had already reached us while we were on New Caledonia and considerable admiration for them existed, not to speak of actual awe. The wish to do as well or better, to maintain pride and self-esteem in the face of the performance of the previous troops, must have played a role in fostering a certain attitude against the neuropsychiatric case.

Of significance was the attitude of the Commanding General, Maj. Gen. (later Lt. Gen.) Alexander M. Patch. At that time, I was acting as division surgeon, and, therefore, I was his medical adviser. In this connection, he called me to his quarters to inform me about his attitude toward neuropsychiatric cases. He advised me quite directly that neuropsychiatric cases were a disgrace to the service, and he insisted that all cases should be court-martialed. As tactfully as possible I informed him that by Army regulations he could not court-martial a soldier who had a medical diagnosis. He very firmly informed me that he was the Commanding General on Guadalcanal, and he would have the authority to do so. Again, I remonstrated with him and he agreed to a compromise as follows: The enlisted men with a neuropsychiatric diagnosis would be left to our medical care, but officers with such a diagnosis would be court-martialed and dismissed from the service with disgrace. My position was then an awkward one, to say the least. I knew I had to protect these people from such measures. Then it occurred to me to ask him if the medical service could have full responsibility for all organic disorders, and to this he quite readily agreed. I believe that, if the records can be checked on the first months on Guadalcanal, there will not be found any neuropsychiatric cases among officers. But some cases will be found who had "blast concussions" instead; that is, had an organic disorder. Needless to say, this same subterfuge was used on many enlisted men as well, for thereby much useless wrangling was bypassed. Obviously, the statistics gathered have been in error.

Therapeutic program.—Improvisation and empirical data were the keynotes of our therapy. Psychodynamic understanding of the significance of the breakdown was not part of our armamentarium.

The impact of seeing the first neuropsychiatric breakdown forced this realization acutely upon all of us. I wrote immediately to friends and to my wife in the United States to send me literature so that I could understand and cope with the problem. However, even weeks later when mail arrived,

there was insufficient literature to help us. My own training had led me only to understand descriptively the schizophrenias, the manic depressives, and the organic psychoses—but this was different. What I saw were men in varying degrees of "startle" states. I still recall vividly seeing one man who remained half-conscious, sometimes talking gibberish, who practically had convulsive seizures whenever artillery was fired or whenever a bomb dropped. Fortunately, such a severe degree of reaction was rare.

The neuropsychiatric casualty was immediately given barbiturate sedation. Many who complained of headaches were also given aspirin. As stated earlier, many of these men after 1 or 2 days of rest were returned to duty, some of whom returned to the hospital in a few days, while others were able to remain on duty.

At first, we felt handicapped by the fact that little or no evacuation was possible from the island because of the combat situation and the unavailability of plane or ship service. My initial hope was to be able to evacuate the neuropsychiatric cases in order to get them farther to the rear and away from the combat situation. As it turned out, it was probably much better for most of these soldiers that they could not be evacuated and, by force of circumstances, were kept on the island, grouped close by their own units and with men they knew in the hospital area. I realized also that moving them away might activate their guilt reactions for deserting their comrades and it might work to their eventual benefit not to leave the island.

Psychotherapy in any uncovering or abreactive sense was not possible. However, a form of psychotherapy was devised in which the neuropsychiatric casualty was put to work in the confines of the hospital area. There was a constant need for enlarging and adding dugouts. There was also a need to dig wells for water. These men were put to work digging both dugouts and wells. The physician's order for each was written in code as " P & S," standing for "Pick and Shovel."

The men usually worked in groups supervised by an enlisted technician from the hospital. The hospital enlisted technicians were extremely helpful. None of them had ever been trained in the management of neuropsychiatric cases. A few selected men were chosen to work with them, and they did so with helpful understanding.

The combination of sedation, a few days of respite from combat as such, the physical work, and the sympathetic but dignified attitude of the hospital personnel enabled many of these soldiers to return to duty—some to full duty and others to limited duty in a rear echelon.

The therapeutic program just described was in operation during our first month on Guadalcanal. Some changes occurred when reinforcements arrived in December 1942, specifically the rest of the Americal Division including the remainder of the medical regiment. We were then able to set up more field hospitals. Most importantly, Capt. (later Maj.) Stanley

Peal, MC, arrived on the scene. He was a psychiatrist with approximately the same training as my own. However, he could be assigned full time to the care of the neuropsychiatric cases, something which I was unable to do because of my other duties and assignments.

In summary, the experience on Guadalcanal demonstrated our (1) lack of preparation for the care of neuropsychiatric casualties, (2) insufficient number of psychiatrists, (3) insufficiently trained psychiatrists and psychiatric technicians, and (4) lack of preparation for other medical and line officers in what to expect in the way of psychiatric disability.

However, the experience was so glaring that it highlighted with effectiveness the need for psychiatrists and psychiatric care. I believe that, partly as a result of our experiences, sufficient knowledge was gained so that new tables of organization were brought into being, creating the position of division psychiatrist. This concept of the frontline psychiatrist developed into an important function during the rest of the war.

New Georgia Campaign

In November 1943, a disease and injury report discussed the medical aspects of the New Georgia campaign (30 June–22 September 1943), although at that time, it was not yet possible to state with precision the relative importance of disease and battle casualty in this campaign. The report did, however, provide additional testimony that the probable incidence of disease (including neuropsychiatric disorder) warrants major consideration in planning any operation.

Excluding 1,000 deaths from enemy action, there were at least 13,000 admissions for disease and injury among a force of about 30,000 at maximum, the initial landing force being much smaller. Of this number of admissions, 27 percent were wounded in action and 11 percent otherwise injured, 21 percent admitted for malaria, 19 percent for neuropsychiatric disorders, 18 percent for diarrheal disease, and 4 percent for respiratory and other diseases.

The initial amphibious operation began on 30 June 1943, and the campaign was successfully completed on 22 September 1943. Guadalcanal and the Russell Islands were the jumping-off points and also served as base areas of supply and hospitalization for the forces of occupation. All branches of the service were represented, but Army personnel, chiefly the 43d, 37th, and 25th Divisions, less certain units, predominated. The 43d and 37th had not previously seen action. During the first week of operations, the medical facilities ashore were extremely limited, and heavy bombings produced more casualties than could be handled satisfactorily.

When the disease and injury report was submitted, final counts were not yet available, but the estimates of the surgeon of XIV Corps included 811 Army personnel killed in action, 132 Navy personnel, and 48 Marines,

roughly 1,000 in all. Perhaps 15 percent were killed by aerial bombing and strafing and 85 percent on the field of battle, especially by automatic weapons fire. Approximately 50 percent of the deaths occurred in the first 2 weeks of the campaign.

In addition to those killed in action, about 3,700 were wounded, including Navy and Marine Corps personnel. For Army personnel, the ratio of killed to total casualties was about 20 percent, rather close to the average World War I experience (excluding gas casualties) and less than World War II averages for the South Pacific and for the war as of that date (November 1943). The proportion of men dying of wounds was as low as 2 percent, before arrival in base areas. Sixty-five percent of the wounds involved the lower extremities, and a certain amount of gas gangrene occurred among the wounded evacuated to the rear.

The neuropsychiatric problem proved to be especially serious in the early and more difficult stages of the campaign, resulting in a high rate of evacuation for this cause. In all, there were roughly 2,300 neuropsychiatric casualties of one sort or another, principally men with temporary symptoms precipitated by fatigue and the emotional stress of jungle combat. The problem was more severe in the 43d Division, involving almost 10 percent of its total strength during July. The pattern of admission suggested a process of contagion within and among units, with "mass" breaks by some small groups. The nearby units of other divisions were believed to have been influenced by the experience of the 43d.

Study of the records of neuropsychiatric evacuees and of other evidence convinced the surgeon that incompetent or questionable leadership in small units was operating as a major precipitating factor. The number evacuated from each company or similar unit was found to be in direct proportion to the number of unit leaders evacuated. Many unit leaders were unable to control the developing symptoms of the men, and in some instances, the junior officers or noncommissioned officers were the first to break, with demoralizing effect upon their men. Some units which had already begun to crack were held together by superior leaders assigned for the purpose. The analysis prepared by the surgeon of the campaign stressed the need which each soldier has for such orientation toward his task as only good leadership can provide, and also the importance of both good discipline and physical fitness. Enemy action, unfamiliar jungle noises, presence of fellow-soldiers with psychiatric symptoms, and combat fatigue were also cited as precipitating factors. Roughly half of the cases were "combat fatigue," and 75 percent of them recovered in 3 or 4 days with rest and good care. Recurrences were rare among those returned to duty.

In addition to battle casualties and neuropsychiatric disorders, diarrheal disease and malaria were outstanding causes of noneffectiveness during the New Georgia campaign. Venereal disease was conspicuously absent. Respiratory disease was only moderately prevalent. Fungus infec-

tions were quite common, involving approximately 25 percent of the command.

The incidence of psychiatric casualties during the New Georgia campaign was extremely high. Unfortunately, documentation is unavailable in relation to the type of planning, if any, for the diagnosis and treatment in this area. However, a comprehensive report was prepared by the XIV Corps surgeon, Col. Frank T. Hallam, MC, on the neuropsychiatric situation and is presented in appendix G.

There were many reverberations in the theater as a result of the psychiatric picture during the New Georgia campaign since it focused attention on the enormous problem of the combat reactions and emphasized the need for intensive planning with treatment as close to the frontline as possible.

Bougainville

Colonel Kaufman's late arrival in the theater (26 October 1943) precluded any possibility of setting up a psychiatric program for the Bougainville operation, which was already being staged. However, he did arrive on Guadalcanal, the staging area, on 1 November and, with the help and collaboration of Lt. Col. Edward J. Grass, MC, 37th Infantry Division surgeon, and Capt. (later Maj.) Saul Greizman, MC, the division psychiatrist, hastily formulated a psychiatric program for this campaign. Colonel Grass [16] considered that the neuropsychiatric problem in the division was rather light due, in part, to the screening program of 27 October 1943.

In the interest of correct diagnosis and for the benefit of the patient, an order was issued by the division surgeon [17] to the effect that all neuropsychiatric cases were to be diagnosed as "exhaustion" [18] on the EMT (Emergency Medical Tag). Final diagnoses were to be made at the clearing station after study.

While with the 37th Division, Colonel Kaufman held discussions with the battalion surgeons and other medical officers regarding neuropsychiatric problems, including their estimation of morale, which the officers reported was good, in terms of readiness to move into combat.[19]

In the combat zone, patients were admitted to the clearing station through the collecting companies. Treatment took place while the patients

[16] Letter, Lt. Col. Edward J. Grass, MC, Division Surgeon, to Col. Earl Maxwell, Headquarters, USAFISPA, APO 502, 27 Nov. 1943, subject: Neuropsychiatric Experiences With 37th Infantry Division.

[17] Letter, Lt. Col. Edward J. Grass, MC, 37th Infantry Division, to All Regimental, Separate Battalions, and Special Unit Surgeons, 5 Nov. 1943, subject: Neuropsychiatric.

[18] During World II, this designation was first used in the Mediterranean theater, during the Tunisia Campaign, when a II Corps directive of 26 April 1943 prescribed "exhaustion" as the initial diagnosis for all combat psychiatric cases (*see* p. 9). Since Dr. Kaufman was aware of the usage of "exhaustion" as an initial diagnosis, it was probably at his suggestion that the term was adopted in the South Pacific Area.—A. J. G.

[19] Letter, Lt. Col. M. R. Kaufman, MC, Consultant Neuropsychiatrist, to Col. Earl Maxwell, Headquarters, USAFISPA, 16 Dec. 1943, subject: Neuropsychiatric Experiences With 37th Infantry Division.

were in the clearing company, from where they were further evacuated, if necessary.

The elements of treatment depended to a great extent upon the type of problem presented. All patients were at first put to bed, given food and fluid as indicated, and interviewed by the division psychiatrist and the neuropsychiatric consultant at the earliest possible time. In addition to rest and reassurance and discussion of the patient's problem, other techniques of reassurance psychotherapy were instituted immediately.

Certain selected patients, presenting anxiety of various degrees, were sedated with barbiturates, particularly Sodium Amytal (amobarbital sodium), in doses sufficent to insure restful sleep and to eliminate the external stimuli of bombing, artillery, and other noises. Patients with mild symptoms responded well to sedation combined with psychotherapy and could, in most instances, be returned to duty.

For patients with more severe symptoms, especially those manifesting great anxiety, startle reaction, especially to noises and sudden jars, amnesia of various degrees, some depression, tendency to cry and sob, or feeling of guilt, a combination of Sodium Amytal sedation followed by 0.25 to 5.5 gm. of Sodium Pentothal (thiopental sodium) was utilized.

Sodium Pentothal was not used to produce sedation but rather to put the patient in a semihypnotic state, during which he either spontaneously or with the active help of the psychiatrist acted out the traumatic situation that he had experienced. This seemed the main psychological purpose of emotional catharsis and, in addition, filled in the amnesic period. The reaction of the patient during his treatment was, at times, rather dramatic, with emotions expressed with great force. The experience was then discussed with the patient either several hours later or next day. Psychotherapeutic catharsis enabled the patient to accent the emotional traumata and gain control of the experience.

Many of the psychiatric patients were returned to duty within 4 or 5 days. The judgment of the psychiatrist was important here as to the type of duty the soldier would be able to perform after his hospitalization. To facilitate proper assignment, the division psychiatrist discussed the man's problem with his company commander and, in some cases, transfer was arranged to a service company or the rear echelon. Full cooperation from the division surgeon and the commanding general made this possible.

Colonel Kaufman made daily ward rounds at the clearing station with the medical consultant. Ward officers and also some of the battalion medical officers participated. Individual patients were interviewed, problems were discussed, and recommendations as to treatment and disposition were made. Various psychosomatic problems were also seen and evaluated, from both the medical and psychiatric aspects.

The neuropsychiatric consultant held seminars in the evening, rotating with the other professional consultants. These were attended by

many of the medical officers and served as an excellent forum for discussion and education.

Various aspects of the neuropsychiatric problems of the division were discussed with the commanding general and staff officers who showed much interest in the psychological approach.

Neuropsychiatric admissions up to and including 1 December 1943, for which statistics were available, were only 25 out of a total of 431. Of these, including three cases of schizophrenia whose illness antedated their combat experiences, one was a case of mental deficiency. These four cases were in no way related directly to the combat situation. One case of morphine addiction and alcoholism was also seen.

Five patients were evacuated to the rear; only one of these, however, could be directly related to the combat situation.

The others either were returned to duty or were in the process of being returned. Not all of these were sent back to combat, some being reassigned.

Colonel Kaufman commented on his service with the 37th Infantry Division, during combat, as follows: [20]

1. * * * from this limited experience, * * * there seems to be a definite relationship between the morale of an outfit and its neuropsychiatric rate.

2. Adequate screening during rest periods will decrease the neuropsychiatric rate under combat conditions.

3. Treatment can and should be instituted in the combat zone, since this and other reported experience shows that it is most beneficial early and "within the sound of artillery."

4. A technique of therapy has been worked out which is of value and should be incorporated in a circular letter to all combat organizations.

5. A great part of the psychiatric functions is directly related to morale factors. The psychiatrists should work closely with the line officer, chaplain, special service, and Red Cross workers.

6. A similar program should be instituted with all organizations preparing to go into combat.

The experience in Bougainville prompted the neuropsychiatric consultant to recommend mobile neuropsychiatric teams in combat.[21] He requested six or eight experienced psychiatrists from the United States who would be assigned to hospitals where the need was already great, but during an operation, they would be detached to the appropriate organization and function as a team or teams in collaboration with the consultant in neuropsychiatry.

These recommendations were first carried out in an effective scale in the Okinawa campaign.

The 37th Division surgeon reported [22] that, for the period from 8 No-

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[20] See footnote 19, p. 465.

[21] Letter, Lt. Col. M. R. Kaufman, MC, Consultant Neuropsychiatrist, to Col. Earl Maxwell, Headquarters, USAFISPA, 20 Dec. 1943, subject: The Organization and Utilization of Mobile Neuropsychiatric Teams in Combat.

[22] Letter, Lt. Col. Edward J. Grass, MC, Division Surgeon, to Commanding General, 37th Infantry Division, 18 Jan. 1944, subject: Report on Neuropsychiatric Cases.

vember 1943 to and including 13 January 1944, 59 neuropsychiatric casualties were admitted to the clearing company, with disposition, as follows: 21 were evacuated; 29 returned to duty, one referred for "Section VIII" discharge; and eight were under treatment, five of whom were expected to return to duty.

Of the 21 patients evacuated, 15 were diagnosed as psychoses. The division surgeon mentioned that it was suspected that Atabrine may have been "a pre-disposing factor due to cerebral irritation."

Commenting on the report of neuropsychiatric problems in the 37th Infantry Division during the Bougainville campaign, Colonel Kaufman summarized: [23]

> Of particular interest is the increase in the number of evacuations for neuropsychiatric reasons.
>
> A breakdown of these evacuations reveals the fact that with one exception noted, all the patients were either psychotic or could not be attributed to the combat situation as such.
>
> Only one panic state was evacuated. It demonstrates the feasibility of therapy for psychiatric patients under combat conditions.
>
> Of further interest is the statement that of the cases returned to duty, all apparently were functioning adequately at the time of the report.
>
> In regard to the question raised as to the effect of Atabrine as a precipitating factor in the manic-depressive and acute schizophrenic group: there seems to be some experimental evidence as reported by Newell and Lidz"[24] that large doses of Atabrine may have some toxic effect on the central nervous system. This whole question awaits further observation and experimentation before it can be fully answered.

A report to Col. (later Brig. Gen.) William C. Menninger, MC, Director, Neuropsychiatry Division, Surgeon General's Office, of 31 January 1944, summarized the experience of this campaign: [25]

> With the permission of General Maxwell, I am enclosing copies of memoranda submitted to him recently.
>
> These cover various aspects of the neuropsychiatric problems as I have seen them in this area. With the 37th Infantry Division, we utilized the clearing company wards for the most part. A casual company was set up nearby for patients who required further rest after the initial treatment. It was not necessary to use this casual company to any great extent as most of the patients who were returned to duty were sent back directly from the clearing company.
>
> I should like to emphasize again, that the tactical situation and the low number of neuropsychiatric cases made the observations of limited value. However, since they tend to confirm observations in other theaters, they are of importance. I should emphasize that in this type of military operation, it is feasible to treat even the most marked types of panic reaction directly within the combat area. The utilization of early sedation for several days in order to block out external stimuli, allowed us to keep the patients until

[23] Letter, Lt. Col. M. R. Kaufman, MC, Consultant Neuropsychiatrist, to Brig. Gen. Earl Maxwell, Headquarters, U.S. Army Forces in the South Pacific Area, 30 Jan. 1944, subject: Addendum to Report on Neuropsychiatric Experience With the 37th Infantry Division.

[24] Newell, H. W., and Lidz, T.: The Toxicity of Atabrine to the Central Nervous System. Am. J. Psychiat. 102: 805–818, May 1946.

[25] Letter, Lt. Col. M. R. Kaufman, MC, Consultant Neuropsychiatrist, USAFISPA, to Col. William C. Menninger, Director, Neuropsychiatry Division, Office of The Surgeon General, Washington, D.C., 31 Jan. 1944.

the reactions were attenuated. Subsequent treatment under Pentothal (fig. 44), with the additional use of reassurance and suggestion, was of great value.

The need to fill in the amnesic period is of importance and should be stressed. Another factor in psychotherapy was the use of ward rounds for the discussion of the patient's problem in front of the whole group. This, of course, was confined for the most part to the actual combat experiences and did not enter into the more intimate aspects of the individual's life. The demonstration to the patients of the universality of fear under combat, especially since the interviewer could talk about his own reaction, served as a form of reassurance. The "fear of being afraid" in terms of cowardice, being "yellow" etc., was brought into the open and the patients in the ward could then freely discuss their own reactions. Many of them took the opportunity of asking the psychiatrist to discuss their problems with them after such ward rounds were over (fig. 45).

The patients, as soon as they were able, were put to various tasks around the hospital. They participated in the many activities necessary in the setting up of the tents, dug foxholes and in some instances, helped with other patients.

Keeping the patients busy is essential. During this particular campaign it could be done fairly easily.

Soldiers were soon aware of the fact that the ordinary medical and neuropsychiatric patient was not being evacuated. This spread through the whole Division. After several

FIGURE 44.—Capt. Saul Greizman, MC, Division Psychiatrist, 37th Infantry Division, administering Sodium Pentothal to a patient before questioning him, Bougainville, 17 December 1943.

FIGURE 45.—Capt. Saul Greizman, MC, Division Psychiatrist, 37th Infantry Division, interviewing patient in ward tent, Bougainville, 17 December 1943.

days, it was of interest to find that patients with acute anxiety and other symptoms would come to me or the psychiatrists and say, "I know that fellows like me are not being evacuated off the island." This knowledge was utilized therapeutically, the patient being told that that was so and that in several days he could, with treatment, be returned to some form of duty.

In some instances after the main symptoms had disappeared under treatment, the patient would spontaneously ask to be returned to his outfit. Usually he was told that he would go back but that there was no need to rush things, that he should remain another day or two and then be returned. Thus the patients did not feel that they were being rushed back, but rather, the medical officer had their best interests at heart and that no man need feel that he would be sent back before he was ready.

Another important aspect of the therapeutic situation was the fact that Captain Greizman, who acted as the Division Psychiatrist, knew personally most of the line officers, especially the company commanders. Thus, he was able to arrange that a soldier who was not fit for immediate return to direct combat could be reassigned, temporarily or permanently, to one of the service companies on the island. A soldier who could not go back directly to the line, could then remain in the combat area and function adequately.

An important observation is contained in the further report of 18 January 1944, by Colonel Grass, the Division Surgeon, that all the patients returned to duty had continued to function. There were no recurrences at the time of his report.

The increase in neuropsychiatric evacuation which occurred after my leaving the combat area, seemed to be due to an increase of psychotic pictures. Some of these seemed to be rather acute syndromes which might have been salvaged; however, I do not have sufficient data to form any opinion on this matter.

The record of Bougainville has been gone into in some detail because this was the prototype of the utilization of psychiatrists in combat.

SUMMARY

Many lessons were learned through the Bougainville operation in relation to the area combat psychiatry. Recommendations made at the time were subsequently carried through in other campaigns, particularly during the Okinawa operation. The concept of a mobile combat team and the use of psychotherapy, particularly hypnosis, were the result of the lessons learned in Bougainville. This was the first operation in the South Pacific in which consultants in all areas were utilized, and their value very definitely established. It is to the credit of General Maxwell that, as surgeon of the theater, he gave the responsibility and authority to his consultant group to participate in the planning and the actual operation of the various campaigns.

CHAPTER XIII

South Pacific Base Command

Edward G. Billings, M.D.

GENERAL HISTORICAL BACKGROUND

Period Sans Psychiatry

On 12 March 1942, the first U.S. Army task force arrived at and took up its station on New Caledonia. Within a brief period of time, independent task forces occupied the islands of New Caledonia, Fiji, Tongareva, Aitutaki, Bora Bora, and Tongatapu. These forces were made up of elements of the 147th, 182d, 164th, and 132d Infantry Regiments, the latter three combat teams forming the nucleus of the Americal Division under the command of Maj. Gen. (later Lt. Gen.) Alexander M. Patch.

Initially, medical treatment facilities consisted of the 9th and 109th Station Hospitals (250 beds each) and the 52d Evacuation Hospital (750 beds), on New Caledonia; the 7th Evacuation Hospital (750 beds), 71st Station Hospital (250 beds), and the 142d General Hospital (500 beds), on Viti Levu (Fiji) ; and one clearing platoon each on Tongareva, Aitutaki, and Tongatapu. The 8th Station Hospital (250 beds), a short time later, was set up on Bora Bora (map 23).

During the following 6 to 9 months, no trained psychiatrists were present in any of the medical facilities, and practically no information other than expressions of implied need for neuropsychiatric assistance was recorded during the first 15 months. During the last 2 months of 1942, several hospitals had arrived in the theater so that in the first trimester of 1943 not more than a half-dozen medical officers, either interested or trained in neuropsychiatry, were available to the 110,000 to 117,000 troops scattered throughout the South Pacific islands. Thus, up to the arrival, in October 1943, of Lt. Col. (later Col.) M. Ralph Kaufman, MC, as neuropsychiatric consultant, psychiatric education in the theater was essentially what the few interested medical officers could accomplish within the confines of their respective hospitals or as permitted by time and command in the field units.

Although no substantiating written record has been found, it has been stated that considerable tension and "some" psychiatric disability among U.S. troops was definitely existent at this early 1942 period, even though there had been no contact with the enemy. The factors implicated were the humid, hot climate which made for physical discomfort and required

MAP 23.—Army medical facilities in South Pacific Area, 31 December 1942.

considerable physiologic readjustment and modification in living habits; the great distances and poor communications between islands; the break in communication with home; the misunderstanding of diseases (especially filariasis) common to some island populations; the traditional misunderstanding of the seriousness of sex deprivation; the frequency of diarrheal diseases; the belief that the "Jap" was a "superman" and an unusually cunning fighter; and the knowledge that a Japanese task force was somewhere within striking distance.

The defeat of this enemy task force in the Battle of the Coral Sea, on 8 May 1942, the appointment of Col. (later Brig. Gen.) Earl Maxwell, MC, as Surgeon, USAFISPA (U.S. Army Forces in the South Pacific Area), and his immediate coordination of medical activities, and finally, the grouping of the various task forces under one administrative head,[1] on 15 October 1942, directly or indirectly proved beneficial to the general morale and dispelled the existing sense of insecurity of personnel.

On 20 August 1942, the 1st Marine Division, under the command of Maj. Gen. (later Gen.) Alexander A. Vandegrift, landed on Guadalcanal. Thus began the battle for a foothold in the lower Solomon Islands.

On 9 December 1942, the Americal Division took jurisdiction of the island, relieving the Marines. By January 1943, part of the 25th Infantry Division had arrived to assist in the all-out attempt to drive the Japanese from Guadalcanal.

No hospitalization other than that afforded by the 101st Medical Regiment of the Americal Division was existent on Guadalcanal until January 1943, after the battle was officially over. Therefore, reports of clinical studies of casualties and accurate data concerning the incidence and type of neuropsychiatric disorders are not available. However, it was stated that "some" neuropsychiatric casualties were seen among those evacuated by air and sea to the Navy hospitals in New Zealand, as early as August and September 1942; also, that so-called "battle reactions" and other personality disorders not only caused a high noneffective rate but also various types of unsavory behavior on the part of some military personnel.

Malaria [2] was, without question, the most serious health hazard. During the Guadalcanal Campaign (7 August 1942–21 February 1943), this debilitating disease, not well controlled because adequate control measures could not be exercised, was a major factor in the production of personality disorders. Atabrine (quinacrine hydrochloride) discipline was poor due to the misunderstanding that it produced diarrhea, hepatic syndromes, and impotence. Other etiologic factors were adverse rumors concerning the eventual ravages of ecthymatous skin lesions (the colloquial terms "tropical ulcer" and "jungle rot," indicating the connotations of such disorders

[1] At this time, the Commanding General, South Pacific, assumed administrative control of Army Forces. However, Headquarters, South Pacific, was under the direct command of South Pacific Area and South Pacific Forces (U.S. Navy).

[2] The malaria rate was 1,042 per 1,000 per annum in February 1943, and before this time, some organizations reportedly suffered malaria rates of approximately 2,000 per 1,000 per annum.

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to the soldier); deprivations of all types (until November 1942 when supplies could be sent in to troops in adequate amounts); lack of training of U.S. troops in adapting themselves to jungle warfare; the soldier's not understanding just why he was fighting; and excessive fatigability in the tropical climate.

By January 1943, U.S. Army troops were stationed in the South Pacific Area on the following islands: New Caledonia, New Zealand, Efate, Espìritu Santo, Fiji, Tongatapu, Bora Bora, Tongareva, Aitutaki, and Guadalcanal. At this time, there were 4,200 hospital beds available to service the 110,074 military personnel in the theater. In the period from 17 February through December 1942, 24,621 patients had been admitted to hospitals, of whom 17,763 were returned to duty, 64 died, and 3,101 (12 percent) were evacuated. No data are available as to the incidence of hospitalization for neuropsychiatric disorders.

On 21 February 1943, the Russell Islands, 58 miles north of Guadalcanal, were taken unopposed. Interestingly, the medical clearing company of the 118th Medical Battalion, because of a slight error in timing, made the initial beachhead landing. By the latter part of March, the 17th Field Hospital (300 beds), which was without a psychiatrist, was in operation. Owing to the geographic restriction of the small landmass and to lack of supplies and recreational facilities, morale was reputedly very low, which led to disciplinary problems and a breakdown in malarial suppressive therapy.

The next major operation in the theater was the taking of Rendova and the New Georgia Islands. This operation began on 30 June 1943; initially, the 43d Infantry Division was the major Army land force involved. In this operation, many landings were made over an area some 45 miles in length which required the medical battalions to be committed in parts. The 17th Field Hospital (less one platoon) did not arrive on Kokorana, New Georgia, until 26 July 1943. Thus, from the beginning, medical facilities were inadequate to care for the heavy load from these operations. During the second week of fighting, morale of the division began to weaken. The neuropsychiatric situation became so serious that the successful conclusion of operation against a numerically inferior force was considered impossible without the commitment of additional forces. For evacuation of casualties, little or no screening was done, so that, reportedly, men actually "tagged" and evacuated themselves to ships for movement to hospitals on other island bases. During July, August, and September, 8,394 patients of all types were lifted from New Georgia.

The factors considered of importance in this high noneffective rate were the relatively large number of overage men in the 43d Division, poor leadership, high incidence of "dysentery," [3] and the onset of malaria con-

[3] Study of many of these patients who were evacuated to hospitals in the rear indicated that a modest amount of "dysentery" was actually a diarrhea syndrome concomitant with psychogenic emotional upheavals.

tracted during the 2 weeks this division staged at Guadalcanal (see also pp. 458–463, and appendix G). The 25th and 37th Infantry Divisions which were sent in to relieve the situation were warned of the neuropsychiatric hazards facing them. The morale and leadership of these organizations were excellent, and with better screening of evacuees and the establishment of a "screening camp" for neuropsychiatric casualties by the 37th Division under the command of Maj. Gen. Robert S. Beightler, the incidence of such reactions remained low in these divisions.

The policy established in the 37th Division was that no patient could be evacuated until screened and cleared at this camp. Maj. James T. Kolb, MC, and the personnel of the 312th Medical Battalion operated the installation. These personnel and Capt. (later Maj.) Saul Greizman, MC, 37th Division psychiatrist, in particular, are deserving of the greatest praise for their accomplishments in this respect. As has been stated, the neuropsychiatric evacuation rate from the 37th Division was almost negligible, while during the same period, there were "50 to 100 actual neuropsychiatric casualties" from the 43d being evacuated daily.[4] The operation on New Georgia was successfully concluded on 23 September 1943.

Because of the lack of trained neuropsychiatrists in forward medical installations, an excessive and overtaxing number of psychiatric casualties were evacuated from New Georgia to hospitals 200 to 2,000 miles in the rear. This, in turn, frequently entailed the patient's passing through two or more hospitals. If and when, finally, he was considered fit for duty, he waited sometimes for weeks, before returning to his unit. For this reason, the percentage of these patients lost to the service was excessively high.

Period of Psychiatric Development

With the arrival of Colonel Kaufman at Headquarters, USAFISPA,[5] in October 1943, educational, preventive, and correctional programs were initiated. When Colonel Kaufman was sent to Headquarters, USAFPOA (U.S. Army Forces in the Pacific Ocean Area), in August 1944, Lt. Col. (later Col.) Edward G. Billings, MC, continued and amplified the basic mental hygiene programs already initiated. These endeavors were energetically pursued up until the SPBC (South Pacific Base Command) was virtually closed out in June 1945.

On 1 November 1943, a Marine combat team secured a small beachhead on Bougainville Island. Five days later, the 37th Infantry Division, plus attached troops, landed, enlarged the perimeter, and made secure a sufficiently large area to accommodate the required airstrips and other installations. In the planning and execution of this operation, an attempt

[4] The neuropsychiatric casualties *listed as such*, from the 43d Infantry Division during the campaign (June, July, and August 1943), numbered 1,648.

[5] On 1 August 1944, the theater under Headquarters, USAFISPA, became SPBC (South Pacific Base Command).

was made to correct medical and neuropsychiatric deficiencies which had existed in the previous Solomon Island campaigns. As alluded to previously, in both the Guadalcanal and New Georgia engagements, medical care during the initial phases of combat was entrusted to divisional medical personnel and installations. In the Guadalcanal Campaign, no hospitalization was available. In New Georgia, a hospital and limited number of extra Medical Department personnel were available but were not taken in initially because of a command decision. In both these campaigns, the patient loads frequently overwhelmed medical installations, with the result that evacuation was often delayed unduly long or abused. Inevitably, in such a situation, urgently needed treatment for the seriously ill patient was unobtainable and far too many less seriously ill were evacuated.

To insure a more adequate type of medical service, the Surgeon, USAFISPA, arranged for the surgical, neuropsychiatric, and medical consultants to accompany the 37th Infantry Division into combat. The 37th was the only Army division involved in the initial Bougainville operations. Colonel Kaufman (ch. XII) has told the story of the planning for the invasion, the indoctrination and briefing of both medical and line officers in the prevention and care of psychiatric casualties, the actual experiences, and the results obtained. The excellent results did much to awaken the theater and tactical force commanders to the effectiveness of adequate preventive and corrective military neuropsychiatry.

Four months after the initial phase of the Bougainville operation and by the time adequate hospitalization had been developed and road nets had been completed, the second phase of the campaign began (March–April 1944). The Japanese now seriously attempted to regain control of the area occupied by U.S. forces. Here again, Colonel Kaufman, assisted by Maj. (later Lt. Col.) Howard P. Gilbert, MC, of the 29th General Hospital (New Caledonia), aided the 37th Division psychiatrist and personnel of the 21st Evacuation Hospital and 52d Field Hospital (two platoons). They screened and supervised the care of psychiatric casualties. The results again were excellent (see ch. XII).

In March 1944, when the 40th Infantry Division was preparing to assault Kavieng in New Ireland, psychiatric, medical, and surgical programs, similar to those utilized in the Bougainville operation, were arranged. This campaign, the last to have taken place in the South Pacific, was canceled. Subsequently in April and May, with the security of this island chain assured, the South Pacific Area expanded to its fullest extent by the unopposed occupation of Green Island, just east of New Britain, and of Emirau Island, immediately north of New Ireland. On 15 June 1944, all island bases west of 159° east longitude were transferred to the Southwest Pacific Area. The logistic responsibility for these islands, however, remained with the South Pacific Area.

On 1 August 1944, the theater became the South Pacific Base Com-

mand.[6] It was responsible for providing logistic support to the Central Pacific and Southwest Pacific Areas; for training, staging, and mounting combat troops; and for medical care of patients originating in its own command and those evacuated from the Central and Southwest Pacific. Approximately, at this time, the gradual "rollup" or closeout of the theater began.

In April 1945, the entire Headquarters, SPBC, commanded by Maj. Gen. Frederick Gilbreath, with Col. Laurent L. LaRoche, MC,[7] as surgeon, was assigned as a unit to Gen. Douglas MacArthur's command and was directed to move to Luzon, Philippine Islands, to prepare as ASCOMO (Army Service Command "O")[8] for the logistic support of the Sixth U.S. Army in the invasion of the Japanese home islands. In May and June, the entire headquarters staff moved to Luzon, turning the responsibility for the final closing out of the South Pacific to another headquarters.

THE PSYCHIATRIC SITUATION

Psychiatric disability was one of the greatest causes of noneffectiveness of military personnel and the loss of manpower to the military forces in the South Pacific Area, just as it was the world over. Actually, the South Pacific exceeded some of the other theaters in this respect. In the event comparisons are made, the following basic conditions should be borne in mind:

1. The South Pacific Area, established in March 1942, was the first area, in World War II, in which offensive land action against the enemy took place. We were not well prepared! It literally grew up like "Topsy," in that there was no unification of theater command for nearly 7 months, and no trained consultants in neuropsychiatry were available to the theater for a year and a half, or until the major mission of the theater was more than half completed.

2. Men sent to the South Pacific, like those going to any theater, were products of our sociology and ideology. Individualism; the belief in a freedom for all men to compete on an equal basis; the tendency for the American to need tangible evidences of success at frequent intervals; the inclination to be too dependent on others for distraction, recreation, and maintenance of interest; the assumption that American business philosophy is a matter of "not what you do but what you are caught doing," with the unconscious realization that the one who does not or cannot do the job gets the benefits and escapes unpleasantness whereas the one who accomplishes the task only faces more work or loses his life—all stood out as dynamic factors in breakdowns in morale, occurrence of resentment reactions, aggressive tendencies, and hurt feelings. These in turn placed certain personalities in considerable

[6] Headquarters, SPBC, remaining at Noumèa. New Caledonia.

[7] On 28 November 1944, when Brig. Gen. Earl Maxwell, MC, was transferred to the Pacific Ocean Area as Surgeon, Headquarters, Army Service Command "I," to prepare for the invasion of the Ryukyu Islands, Col. Laurent L. LaRoche, MC, replaced him as Surgeon, South Pacific Base Command.

[8] "O" standing for OLYMPIC, the code name for the invasion of Kyushu, Japan.

jeopardy of psychiatric disability when they were subjected to special circumstances.

3. Other factors common to the American way of life and colored by general negligence in attention to well-known mental hygiene principles also promoted the soldier's adverse reactivity. For example: The feeling that he did not know the basis for the war and suspected the usual explanations to be but "propaganda," and certainly not very satisfying; an increasing resentment over others remaining at home "to fill the essential jobs and always striking for more money while we sweat it out"; "isn't our job essential?", especially in service troops; the not infrequent and flagrant inequality of officer and enlisted personnel in acquiring comforts and niceties; the concern for those at home often aggravated by the common knowledge that "the folks are told to write only pleasant news"; and the failure of many unit commanders to keep their personnel informed about the mission as well as the situation would allow.

4. To the average soldier and officer going to the theater, the South Pacific was an area about which he knew practically nothing. Therefore, it was a place far from home where, he believed, tropical climates would age him quickly; dangerous diseases with which he was unfamiliar were rampant; and the Japanese, who was described as a superfoe, constantly lurked. On seeing natives afflicted with filariasis, many became alarmed. Misunderstanding about Atabrine, such as a belief that the drug would produce impotency, sterility, and liver damage, either led to undue personal concern and to distrust of medical policy, or to vague apprehension.

5. At first, supply problems were nearly overwhelming, owing to lack of transportation facilities and long distances involved. Troops were deprived of food, materiel, and mail. Not infrequently, soldiers and even units referred to the South Pacific Area as the "forgotten theater." The connotations of this trend of thought are apparent. Contracting malaria, dysentery, various fungus infections, and dermatological disorders; working in an excessively humid and hot climate, which resulted in unusual fatigability; living a monotonous and seemingly ever narrowing life on an island with few, if any, of the usual distractions, recreations, or even human beings with whom there was anything in common; believing that sexual abstinence was definitely unhealthy; discontent incident to losing sight of the objective of the mission; and being staged, alerted, and mounted for combat with its concomitant normal tensions and apprehensions—all conspired to render many individuals less efficient and more susceptible to disabling psychiatric syndromes.

Precipitating Circumstances

Some of the common factors and situations that, in various combinations, seemed to act as precipitants of personality disorders were:

In combat troops:

1. Facing impending danger, especially for a period of time without specific happenings to break the tension or circumstances permitting the venting of physical effort. For example, remaining alert for a prolonged period of time in a concealed position or foxhole, subjected to the full effects of loneliness and jungle sounds; being pinned down by artillery or heavy mortar fire; or being caught in the open by strafing from the air, especially when immobilized by impediments or terrain.

2. Subjection to heavy artillery fire with all the concomitant and incessant stimulation of sensory-perceptive functions.

3. Occurrences of a lull, following a period of danger, which allowed for cogitation and a fuller intellectual realization of what was and might be experienced, all with its possible effect on the fulfillment of the individual's desires, needs, and ambitions as they relate to home, civil life, and self-preservation.

4. Occurrence of transitory, psychobiological disorganization in a particularly susceptible personality when subjected to fear-inducing circumstances.

5. Prolonged patrol and reconnaissance work in enemy-controlled jungle.

6. Promotion, in the field, to positions of great responsibility.

7. Grief over loss of "buddies," or loss of a tactical position taking the form of self-condemnatory thinking.

8. Inadvertent evacuation to a position of safety with that noted in paragraph 3 resulting; thus, having been removed from a dangerous and undesirable situation by the acts of others, unsatisfactory rationalization may take place and thereby promote anxiety and disquieting psychosomatic phenomena; or, through loss of the sense of personal responsibility, various sorts of invalidating attitudes may occur.

9. Loss of confidence in leaders or realization that leaders are not so competent as they should be.

10. Mass psychological reactions.

11. "Snow jobs" or tall tales told often by the veteran combat soldier to the new replacement at, or before, a critical time.

12. Unwarranted or unexplained evacuation or transfer of psychiatric and minor medical and surgical casualties from hospital to hospital or base to base, resulting in loss of the individual's security in his bodily or personality integrity, loss of identification with his unit, diminished esprit de corps, decreased desire or feeling of need to continue fighting—all being replaced by a conscious or "subconscious" appreciation that it might be possible to return home and thereby honorably escape further danger.

13. Ill-considered or poorly timed statements to troops by visiting high-ranking officers which lead to misinterpretation of policy, or promote loss of confidence in the administration.

14. Repeated dress parades for visiting dignitaries when the combat team is staging for a forthcoming operation.

In both combat and service troops:

1. Hypochloremia, dehydration, fatigue, and subclinical or clinical illness decreasing the efficiency and smooth psychobiological functioning of the individual, thereby often setting the stage for insecurity, tension, and anxiety with personally alarming symptomatology.

2. Enemy propaganda, especially that making the soldier introspective, aware of bodily sensations, and apprehensive regarding his future psychological and physical health.

3. Rumors stemming from isolation, ignorance of facts, and inactivity.

4. Postponement of the promotion of enlisted men and officers, and the filling of position vacancies with new men in grade or rank.

5. Ill-advised promotion of men and officers to responsibility beyond their ability to carry it with satisfaction to themselves or others.

6. Discrepancy between War Department and politically announced policy and plans for rotation and redeployment of overseas personnel, and the inability or unwillingness to implement the announced plan or policy in an overseas command.

7. Knowledge of the unfair discrepancy in remuneration to and appreciation for the individual in military service and the one in the merchant marine and industry. This frequently caused resentment, personal and group-disturbing morale attitudes, and behavior that overshadowed hatred for and desire to defeat the enemy.

8. Seeming ignorance of the average commander and the officer in personnel work either of War Department policy or of how to comply therewith in regard to proper assignment and readjustment of military personnel.

9. Poor leadership, especially of high-ranking officers, as evident in the officer looking after his personal comfort and safety before acquiring them for his command—a requisition of much needed material and manpower for the construction of a headquarters or home that are "Stateside" and "monuments to building ability," and friendships with the opposite sex that can easily be misinterpreted and resented by the soldier; officers being allowed liquor, while the enlisted men have rationed warm beer, or nothing at all; utilization of Government transportation to bring in special foodstuffs, luxury items, and horses for equitational purposes.

10. Apparent "empire building" of general officers with resulting increase in the number of echelons of command, organizations becoming topheavy with personnel frequently having to indulge in unnecessary work to keep busy, and more confusion and slowness in accomplishing the essential mission that is necessary.

11. Work or combat under adverse conditions prolonged to the breaking point of the "average" man.

12. Failure to expedite the elimination from a unit of ineffectuals because of officers' ignorance of general policy and standing operating procedures for handling such matters through proper administrative channels.

13. Disturbing news from home, such as of a wife's infidelity, business reverses, deaths, illness, and encouragement to forego continuance of further military responsibility.

14. Becoming enmeshed in a personality difficulty and either being unable to appreciate its significance or feeling compelled to reject the idea, if he does have insight, because of general public and military attitudes.

Medical Department activities and related War Department policy, constituting some of the most important precipitating and dynamic factors, will be discussed in greater detail in the paragraphs immediately to follow.

Factors Contributory to Noneffectiveness

Before a discussion of how Medical Department activities and War Department policy entered into the production of psychopathology, it should be said emphatically that, generally, all types of medical service rendered in the South Pacific fundamentally were beyond reproach. It was excellent indeed. The successes have spoken for themselves. If what appears here seems unduly harsh and critical, it is only because an attempt has been made to elucidate those facts and trends which were existent during the war and which should be considered by every medical and line officer, and the military organization as a whole, so as to prevent an occurrence "the next time!" This exposition is essentially an attempt to explain the problems requiring solution and the means taken by the consultant in neuropsychiatry to solve them in the South Pacific. The activities of the Medical Department, here to be discussed, were not unique to the South Pacific and should be considered as part of the large constellation of dynamic factors influencing the effectiveness of all military personnel.

Military service for most Medical Department personnel (officers, nurses, and enlisted men) was a new experience which was entered with a profound urge to be respected by the line. However, the medical officer entered the service with little or no orientation as to what his rights and professional privileges were in relation to the line. Conversely, it is doubtful that the line officer was any better oriented as to the basic facts of what constituted good medical procedure. The medical officer was told too frequently, or understood by implication, that the "line" could dictate to him, even to the extent of limiting his professional examination and treatment of patients. This was most noticeable in dispensary activities.

The medical officer also became imbued with the misunderstanding that

it was his obligation to include in his examination practically every diagnostic procedure available. He believed that he would be held liable if there was no extensive tangible evidence, such as laboratory data and confirmatory statements by other physicians, to substantiate his opinion. In other words, the full and free use of his innate diagnostic senses, professional imagination, and judgment became hampered.

The dispensary physician felt obligated to keep sick call down to a minimum of time. This precluded giving adequate attention to the personal problems of patients and led him to "pass the buck" to another installation. The result, excepting in combat, was that patients were unnecessarily referred from dispensaries to hospitals, from ward to ward, and from hospital to hospital. In the hospital, the proverbial "book" of diagnostic procedures was figuratively cast at the patient, without adequate explanation as to why it was done and, subsequently, without an understandable formulation of the findings as they pertained to the illness. Occasionally, ward officers would retain patients unduly long to prevent additional patients from being admitted, or to follow out some particular professional interest or research endeavor. At times, commanding officers of hospitals would condone such retention of patients to make some sort of record or to justify the existence of the hospital.

In the military service, for admission to sick call or hospital, unless the line-of-duty status is "no," the patient loses no prestige, no pay, and no time; he escapes work, danger, and the vicissitudes incident to routine duty but does gain security and attention in pleasant surroundings. Without question, War Department policy places a premium on ill health, not on staying well and doing the job! Therefore, actually, military policy allows the individual to relinquish honorably his responsibility for remaining effective. The line officer knows this and attempts to keep his noneffective rate low by raising as many barriers to sick call and hospitalization as possible. This explains the attitude of why he so often believes the medical officer is at fault and must be curtailed and dictated to by command. Line officers, however, abused medical disposition channels, by using such channels to rid the organization of the intellectually and temperamentally unadaptable and less efficient men and officers. If the individual could be gotten into a hospital, the unit commander was temporarily relieved of instituting corrective administrative procedures; if, through leniency of a ward officer or disposition board, the patient was reassigned or evacuated medically, the commander was saved time and unpleasant paperwork.

The line has accused the Medical Department of hospitalizing and evacuating patients unnecessarily because of psychiatric disorders. The Medical Department, on the other hand, has criticized the line for its lack of understanding of the fundamentals of psychopathology. Both were at fault and, therefore, the criticisms were justified. In the South Pacific, the

situation could be and was remedied by the creation of a common ground of understanding through education, which produced gratifying results.

As a result of the interplay of the complexes of factors, it was evident, first, that all officers were in need of fundamental orientation in the basic facts of maintaining health in a command through close collaboration and cooperation with one another and with their respective departments.

Second, that medical channels were too available for abuse. Through the misuse of medical channels and facilities, a distressingly large number of casualties were produced—far more than were ever produced by direct enemy action. In the South Pacific, the neuropsychiatric consultant gave highest priority to procedures intended to correct these situations.

Psychiatry under combat conditions, with the institution of dramatic and often insistent types of therapy, is important. The more difficult task, however, is to prevent such combat reactions by instituting proper mental health measures for all troops before battle. The accomplishment of the task is predicated on the successful management of the interlacing factors and situations under discussion.

To explain how an individual, inadvertently neglected in the dispensary or admitted to and handled in a hospital, or kept too long in a medical installation, can be rendered a loss to the military by either the production of a new psychological reaction or the exaggeration of one already existent, is deserving of time and space.

Consider hypothetically, dispensary A, serving unit B, of which the commanding officer and his commissioned and noncommissioned officers have had no orientation in personality functioning, or in the meaning of behavior or personnel assignment and adjustment problems. A soldier, because of some discomfort due to discontent, tension, anxiety, or mild depression, has shown decreased efficiency. He is unstable and excuses himself as being sick. He has been on sick call twice. The first time, he was seen for 5 minutes by the medical officer who, in a matter of seconds, obtained whichever symptoms the soldier could tell the dispensary clerk or the physician while under pressure of being a patient seeking help. More time cannot be spent because sick call must be completed at a given time or the "old man" will raise some trouble. The patient is hastily examined, and a clerk is instructed to dole out some medication in the hope "it'll satisfy."

The soldier, on sick call for the second time, is desirous of obtaining an examination as thorough as he, through the years, has been taught by the medical profession and Army to expect; he exaggerates some aches and pains with the hope that he will obtain the desired results and find relief. Since the medical officer and his line confrere have not consulted on this man's decreasing efficiency, no inkling exists as to what the real problem might be. The soldier is referred to the hospital with or without explanation. If one is given, the medical officer unwittingly justifies his failure to make a diagnosis because he has, say, no X-ray apparatus, and "a G.I. study will

have to be completed before a diagnosis can be made." The seed of full-fledged bodily insecurity is added to the soldier's existing problem and, if not carefully controlled, will sprout rapidly.

If this patient is a professional man or skilled mechanic, he realizes that he is needed in a particular position somewhere in the Army but that he has been assigned to a nonchallenging, undesirable job. To call him back after sick call for a half hour's talk and a reasonable examination would have brought all this to light. Then, conference with the commanding officer might have resulted in a proper assignment and attainment of full efficiency. Instead, the patient goes to a station hospital—another new experience. By so doing, some in the company believe him to be a "gold brick"; this places him in a position requiring that he "save face" and causing resentment and emotional unrest. During the next week, multiple laboratory and consultant examinations are accomplished. By now, the soldier is really concerned about himself for no one has found the difficulty.

In addition, the "country club life" of the hospital as compared with duty—all without loss of prestige or pay—makes the thought of leaving difficult to consider. Absence from the unit has lessened some of the unit esprit de corps. In part, this spirit has been transferred to the ward group, members of which have little in common except sickness and talk of relief from duty. Since no informal note was sent to the hospital from the unit medical officer and no conference has been had with the unit commander, only the patient's statements and story are available to the hospital physician.

The patient has no insight as to the nature of his symptoms; therefore, his evaluation of situational and other factors is unintentionally distorted. No diagnosis is made, but he has heard he might be a "psycho" or that "the irregularity in duodenal shadow," as discussed in the fluoroscopic room, may be of significance, or perhaps the "anomaly of his spine must be noted." He is returned to duty with a slip stating the dates of admission and discharge from hospital and the diagnosis "no disease found." It takes but a short time for this information to spread through his company. He returns feeling as bad as ever, possibly worse by virtue of his accumulated self-concern. He is a "gold brick," so they say. Soon he is vomiting through disgust, sleeps poorly, is less efficient than ever, and is becoming a little belligerent in his insistence he cannot do duty and wants to attend sick call. Insofar as the organization is concerned, the hospital said he was fit for duty, therefore he is merely "dogging it" and "he will work or else."

In an attempt to find the cause of his trouble, the patient has inquired about peptic ulcer and spinal deformities, and has looked up the readily available regulations and directives dealing therewith. A letter from home in answer to one of his written in the hospital explains that his father had "stomach trouble" for years, that the doctors were unable to make a diagnosis "until he was riddled with cancer." The soldier is well on his way to

psychological invalidism, more handicapped than ever, and undoubtedly will be returned to the hospital, then transferred to a general hospital where, after 2 weeks of repetitious work and increasing disability, he hears he will be transferred to the "NP ward." He is but, by the time of arrival, he has read his record while carrying it from one section to another; misunderstands most of what he reads; is now more tense, fearful, sad, worried, and unable to sleep; and has begun to believe he is disabled for life. Thus, he has been a noneffective and actually inactive for weeks and will require 2 to 3 more weeks of painstaking care to be rehabilitated. He may, however, respond so slowly as to be started on the long chain of evacuation—ending possibly with his appearance before a CDD (Certificate of Disability for Discharge) board in the United States.

In this hospital, as in many, one or more of the medical officers do not understand adjustment in the field, are discontented, have a strong urge to return home themselves, or feel they would not want such a man as the patient in their unit, or the patient's commanding officer states he is "moving up," cannot use the patient and has to have a replacement immediately. It has happened that patients, because of the misunderstanding of the functions of various field and service units, have been "boarded" and sent to the United States.

If the patient after all this is returned to duty, medical prestige in the unit has dropped; the patient is looked upon as being not too reliable because after all he is "psycho"; and some of the more unscrupulous men in the unit have probably tried to see how far they could go in the way of obtaining a respite from arduous duty via hospitalization. So, if the given patient returns to duty, others have to some extent become noneffective as a result of his case. Such experiences as these were common in the South Pacific—as elsewhere in the Army. The answer is policy formulation and education of line and medical officers.

PSYCHIATRIC DISORDERS

Scope

Before discussing the administrative, supervisional, and educational steps taken to alleviate the problems heretofore outlined and to improve the psychiatric situation in the South Pacific, a brief analysis is presented of the psychiatric disorders in this theater.

Between 17 February and 31 December 1942, when the services of a psychiatric consultant were not available and with only two general and two station hospitals to serve the average strength of 45,000 military personnel in the theater, 24,621 patients were admitted to hospitals. Of these, 3,101 (12 percent) were evacuated to the United States. No complete statistical data were kept on the incidence of neuropsychiatric disability.

However, of 1,810 patients sent to the United States during this time, it was estimated that 32 percent were definitely noneffective because of psychiatric illness. The two general hospitals reported that between 10 and 14 percent of all hospital admissions were to their respective psychiatric services.

During the year 1943 (statistics were not specifically kept on the incidence of neuropsychiatric reactions), the number of hospital beds rose from 4,250 to 14,815, as the troop strength mounted from 110,074 in January 1943 to 176,254 in December 1943. During this year, malaria was rampant on the Fiji and Samoan Islands and accounted for nearly one-half of the 151,577 admissions to hospitals (262,997 admissions to both hospital and quarters). During the same period, the percentage of patients who had been admitted to hospitals and then evacuated rose from between 7 to 9 percent up to 27 percent at the end of the year.

The only statistics on the incidence of neuropsychiatric disability were those obtainable from the statistical health reports (WD MD Form 86ab) and were not very explicit. These records, however, revealed that 28.45 percent of all medical evacuees were sent to the Zone of Interior because of personality disorders. These data, which are undoubtedly low, equaled the percentage evacuated for all other diagnosed diseases, exclusive of malaria and postoperative syndromes, during the period delineated.

During the latter months of 1943, several important medical contributions were made to (1) the knowledge of nasopharyngeal and cutaneous diphtheria, malariology, hookworm disease, dengue fever, and false positive serological test for syphilis in malaria, especially in the 39th General Hospital, in New Zealand, and the 18th General Hospital, on Fiji; (2) the psychiatric complications of filariasis by the 29th General Hospital, in New Caledonia; (3) the development of a new type of surgical dressing for wounds by the 25th Evacuation Hospital, at Espìritu Santo; (4) the early treatment of combat casualties by the 20th Station Hospital, on Guadalcanal; and (5) the beginning of a coordinated, active convalescent rehabilitation program by the 29th General Hospital, still under tentage in December 1943, and the 39th General Hospital, in a modern setting in New Zealand. The contributions made during the early phase of the Bougainville campaign have been referred to previously.

Neurological problems were not prominent in incidence, contributing to not more than 10 percent of the total neuropsychiatric load.

The nurses [9] were particularly affected by the adverse circumstances existent. Their clothing was inadequate and inappropriate for the climate; by necessity, they had to live behind wire barricades for protection from some of our own troops. However, rest centers in New Zealand and New Caledonia were soon established, and these aided greatly in maintaining the effectiveness and morale of the nurses.

[9] On 1 January 1943, there were 602 members of the Army Nurse Corps in the South Pacific.

Statistical Data

In the early part of 1944, hospital beds increased from 14,615 in January to 18,990, and then declined to 11,150 by the end of the year. The troop strength at the time was at a peak of 224,545 in February, declining to 90,439 in December 1944 (table 11, appendix D). During 1944, a total of 86,007 patients were admitted to hospitals. Of 51,272 patients evacuated to the United States, one in 12 was sent out by air. Of the hospital admissions, the neuropsychiatric problems, conservatively reported, constituted from 15 percent in the smaller hospitals to as much as 25 percent in some of the general hospitals.

In August 1944, Colonel Billings, chief of medicine at the 29th General Hospital, relieved Colonel Kaufman as neuropsychiatric consultant and, in December, became both medical and neuropsychiatric consultant of the theater.

In the South Pacific Base Command, as in all theaters, neuropsychiatric disorders continued to constitute a major medical problem. A consolidated statistical presentation of the neuropsychiatric caseload data for 15 January through 31 December 1944 is contained in appendix D.

When comparisons are made and the overall picture for the year is evaluated, the following four basic facts must be borne in mind for they cannot be depicted graphically or statistically, yet they materially affect the interpretation of data so presented:

1. An accurate evaluation of the total neuropsychiatric caseload was difficult to obtain since many patients with neuropsychiatric disorders were treated on the medical and surgical wards and were seen by consultants only. In many instances, therefore, the neuropsychiatric diagnoses were secondary, in which event they often might not be recorded on the admission and disposition records from which statistics were compiled.

2. The number of cases admitted or discharged from hospitals were those from this theater plus a large number from the Southwest Pacific and Central Pacific Areas. If these are charged as casualties against the strength of this theater, erroneously high neuropsychiatric rates are incorrectly assignable to the South Pacific Base Command. Patients from the Southwest Pacific Area and Central Pacific Area, to reach hospitals in this theater, frequently passed through three to four medical installations and were finally presented for definitive therapy far from the site of the inception of their disorders and their parent organizations. By virtue of these facts and of the time that elapsed, they were less amenable to definitive therapy.

3. During the first trimester of the year, this theater was still closely associated with combat; beginning in the second trimester, the theater became entirely a base in the zone of communications; during the third trimester, the South Pacific Base Command became a rapidly contracting base with many medical installations and personnel being continually redeployed.

4. The neuropsychiatric load is estimated on the basis of patients evacuated to the United States and those returned to duty. No means were available to determine how many of the return-to-duty group remained on duty for any period of time.

The neuropsychiatric caseload, as evaluated in terms of final disposition, represented from 12.87 to 15.24 percent of all dispositions (patients) for the year. The last trimester (4-month period) percentage was the highest for the three periods of the year.

Despite the increase in percentage and relative increase in number of neuropsychiatric cases encountered during the last trimester of 1944, the increase in percent of such cases returned to duty and the decrease in percent evacuated to the United States were most encouraging (table 62).

Chart 14 shows, month by month, some improvement in psychotherapeutic results. It should be stressed, at this point, that the policy in this theater was definitely not one which countenanced the return of patients to duty for the sake of record or merely to take a chance or to "pass the buck." On the contrary, the policy was to evaluate every patient carefully in terms of treatability with the facilities available, the protection of the service, the maintenance of the efficiency of the unit to which the soldier belonged, and the welfare of the patient, all according to the best principles of the practice of military medicine and neuropsychiatry.

From August 1944, the number of neuropsychiatric cases returned to duty outnumbered the number evacuated to the Zone of Interior each month in a consistent fashion. This had occurred despite the fact that as the "manpower barrel" was being scraped more assiduously, the more constitutionally determined inadequacy reactions increased relatively (table 11, appendix D).

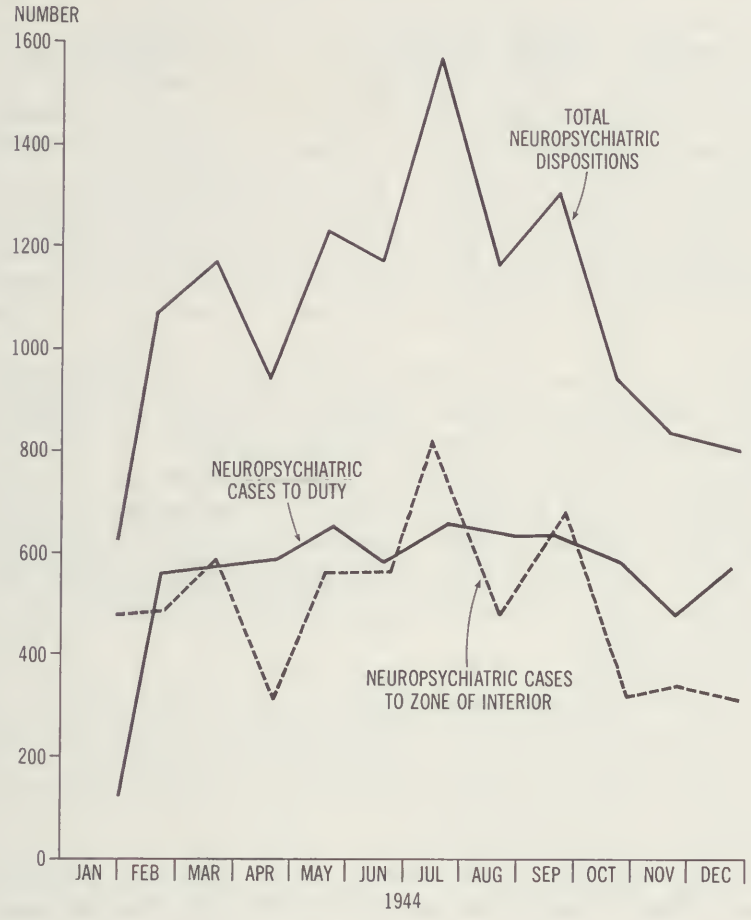
It is worthy to mention that in evaluating this improved "to duty" rate that more constitutional psychopaths and alcoholics were being returned to duty—to duty for disposition under the provisions of AR 615–368

TABLE 62.—*Disposition of neuropsychiatric patients, South Pacific Base Command, 1 January 1944–30 April 1945*

Trimester	Percent of neuropsychiatric patients evacuated to United States	Percent of neuropsychiatric patients returned to duty	Percent of all patients returned to duty
1944			
1 January to 30 April	50.32	49.68	7.44
1 May to 31 August	49.03	50.97	8.88
1 September to 31 December	43.16	56.84	10.55
1945			
1 January to 30 April	43.09	56.91	12.52

Source: Essential Technical Medical Data, South Pacific Base Command, for April 1945, dated 15 May 1945.

CHART 14.—*Number of neuropsychiatric dispositions, per month, South Pacific Area, 1944*



Source: Essential Technical Medical Data, South Pacific Base Command, dated 12 Feb. 1945.

and AR 615–369. There formerly was considerable misunderstanding of the constitutional psychopath in this theater. Through education of both medical and line officers, much of this misunderstanding was corrected and disposition in accordance with existing regulations was used more. As a result, the morale of the various units was unquestioningly maintained on a better level than in former days when disposition of such cases was to a considerable extent via the "medical route."

It is believed that this apparent improvement in the handling of neuropsychiatric casualties in the South Pacific Base Command was a direct reflection of the strenuous efforts which had been made since August 1944

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to orient better the various medical officers in aid stations, in dispensaries, and in medical and surgical wards in early diagnosis, in fuller appreciation of the meaning of personality disorders, and in treatment of the neuropsychiatric patient. Another point indicative that this education had been effective in a measure was the decrease in number and percent of neuropsychiatric patients transferred from hospital to hospital (table 63).

Psychoneuroses again, of course, constituted the largest single diagnostic group, forming 79.4 percent of the total neuropsychiatric cases, 48.18 percent of all such transferred, 53.26 percent of all neuropsychiatric patients evacuated, and 55.93 percent of all those patients returned to duty.

Approximately 9.1 percent of all neuropsychiatric patients dispositioned to duty or to the Zone of Interior were psychotic (psychoses and dementia praecox).

During the last 4 months of 1944, an accounting was made of diagnoses indicating so-called psychosomatic disorders (table 64). The frequency with which these cases were transferred from consultant to consultant and from hospital to hospital emphasized again the need which the average medical officer had for further education in personality functioning, in proper and immediate evaluation of patients presenting manifestations of such syndromes, and in expeditious treatment of them. Efforts were made along these lines, utilizing to the fullest extent the six qualified neuropsychiatrists in the theater.

During 1945, activity in the South Pacific Base Command began to decline. In May 1945, Headquarters, SPBC, began to relinquish its responsibility to replacements brought in to New Caledonia from the various island bases, and to move as Headquarters, ASCOMO, to the Philippines, to prepare for the logistic support of the Sixth U.S. Army in the invasion of Kyushu, Japan. Therefore, no statistical data are available to the author subsequent to May 1945. A summary of the pertinent facts regarding neuropsychiatry in the South Pacific Base Command during 1945 will, for that reason, only be for the months of January through April. During this trimester, the troop strength declined only slightly to a mean average of 84,320, but hospital beds decreased from 12,110 to 4,850. By November 1945, only 165 Army personnel were in hospitals—the theater was nearly ready for closing.

TABLE 63.—*Disposition of neuropsychiatric patients, by transfer from hospital to hospital, South Pacific Base Command, 1 January–31 December 1944*

Period	Total number of neuropsychiatric patients	Transferred	
		Number	Percent
1 January to 30 April	3,903	2,331	59.72
1 May to 31 August	5,199	2,097	40.33
1 September to 31 December	4,055	1,258	31.02

Source: Essential Technical Medical Data, South Pacific Base Command, for January 1945, dated 12 Feb. 1945.

TABLE 64.—*Disposition of neuropsychiatric patients, South Pacific Area, 1 September–31 December 1944, by psychosomatic diagnosis*

Psychosomatic diagnosis	Evacuated to United States	Returned to duty	Transferred	Return to duty and evacuation
Angina pectoris	1	0	2	1
Anorexia nervosa	0	0	1	0
Asthenia	1	3	1	4
Asthma	36	9	27	45
Asthma, bronchial	83	39	52	122
Cardiac disorder	14	29	13	43
Cardiac palpitation	0	1	0	1
Cardiospasm	0	3	1	3
Colitis, spastic	2	1	0	3
Constipation, spastic	0	2	0	2
Dermatitis, neurogenic	0	3	2	3
Diabetes mellitis	8	3	5	11
Duodenal ulcer	78	8	43	86
Eczema	3	25	11	28
Gastric ulcer	7	4	5	11
Hypertension	19	11	16	30
Hyperthyroidism	2	0	0	2
Ill-defined conditions of gastrointestinal tract	5	215	46	220
Miscellaneous	5	34	15	39
Narcolepsy	1	2	2	3
Psoriasis	9	17	9	26
Pylorospasm	0	3	2	3
Syncope	0	5	0	5
Tachycardia	4	30	13	34
Urticaria	20	68	19	88
Total	298	515	285	813

Source: Essential Technical Medical Data, South Pacific Base Command, for January 1945, dated 12 February 1945.

The changes in the neuropsychiatric situation, during 1944 and 1945, are presented in tables 65, 66, and 67 (see also table 62). The transition as to psychiatric caseload in terms of general activities is indicated in table 65.

Table 66 is a consolidated statistical presentation of the neuropsychiatric caseload data for the trimester, 1 January through 30 April 1945.

The neuropsychiatric caseload (3,019 patients), in terms of final disposition, represented 17.74 percent of all dispositions (17,016 patients) for all causes during the 1 January through 30 April 1945 period. This last trimester percentage is again higher than that for any of the other trimester periods for which statistical data are available.

It was gratifying to realize that, despite this relative increase in percent of neuropsychiatric cases dispositioned during these 4 months,

TABLE 65.—*Transition as to psychiatric caseload in terms of general activities, South Pacific Base Command, 1 January 1944–30 April 1945*

Period	Hospital beds		Average strength	Divisions in area	Outstanding events
	Maximum	Minimum			
	Number	*Number*	*Number*	*Number*	
1944				(4+)	
1 January to 30 April	15,078	14,038	225,207	Americal, 37th Infantry, 25th Infantry, 43d Infantry plus 147th Infantry Regiment.	1. New Georgia casualties still being processed in hospitals. 2. Japanese counteroffensive at Bougainville. 3. Preparations for Kavieng operation, later canceled. 4. Processing and rehabilitation, 25th and 43d Infantry Divisions. 5. Neuropsychiatric screening, 43d Infantry Division.
				(4+)	
1 May to 31 August	15,174	13,968	169,049	37th Infantry, 25th Infantry, 43d Infantry, 40th Infantry plus 147th Infantry Regiment.	1. Transition from combat zone to one of logistical support.
				(2)	
1 September to 31 December	12,707	11,454	108,438	25th Infantry, 27th Infantry.	1. No combat. 2. Many Southwest Pacific Area and South Pacific Base Command neuropsychiatric casualties evacuated via South Pacific Command.
1945				(2+)	
1 January to 30 April	12,110	4,850	84,320	27th Infantry, 81st Infantry plus 147th Infantry Regiment.	1. Neuropsychiatric program emphasized. Special school of neuropsychiatry established. 2. Processing and building up of tactical units. 3. Rapid redeployment of units and personnel from theater.

TABLE 66.—*Disposition of 3,019 neuropsychiatric patients[1] of 17,016 patients, South Pacific Base Command, 1 January–30 April 1945, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent	Number	Percent	Number	Percent
Psychoneurosis	708	54.42	889	51.76	246	56.04
Neurasthenia	10	.77	86	5.01	4	.91
Constitutional psychopathic state	52	4.00	193	11.23	19	4.33
Dementia praecox	113	8.69	0	-------	13	2.96
Epilepsy	22	1.69	3	.17	4	.91
Enuresis	5	.38	20	1.16	5	1.14
Psychosis	168	12.91	3	.17	17	3.87
Neurological diagnosis	176	13.53	322	18.75	107	24.37
Mental deficiency	24	1.84	37	2.15	9	2.05
Neurocirculatory asthenia	11	.85	71	4.13	9	2.05
Alcoholism	12	.92	94	5.47	6	1.37
Total	1,301	43.09	1,718	56.91	[2] 439	

[1] Total neuropsychiatric caseload is estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] Represents 15.65 percent of total 2,806 transfers.

Source: Essential Technical Medical Data, South Pacific Base Command, for April 1945, dated 15 May 1945.

the trend continued toward a still greater increase in percent of such cases returned to duty and a decrease in percent evacuated to the United States (table 62).

During the last trimester in January and April, losses occurred in cases sent to duty. It is believed that these were inevitable occurrences resulting from—

1. Backlogging of "boarded cases" awaiting evacuation to the United States because of interruptions in transportation.

2. Sudden closing and redeployment of the hospitals with the tendency "to clean house" on the part of hospital commanders.

3. Movement of large tactical units with the concurrent increase in strain and tension affecting the more apprehensive and susceptible individuals.

Inasmuch as the question may be raised as to whether some particular categories of neuropsychiatric disorders might account for this improvement, table 67 is presented, which shows that the percentage of all categories returned to duty, except psychosis and neurological disorders, increased. Through the education of command and Medical Department personnel, the number of "administrative disposition cases" evacuated via medical channels decreased. (Note "Constitutional psychopathic state" and "Mental deficiency," table 67.)

TABLE 67.—*Disposition of neuropsychiatric patients, South Pacific Base Command, 1 January 1944–30 April 1945, by diagnosis*

Diagnosis	Total neuropsychiatric patients (number)	Returned to duty	Evacuated (percent)
	1 January–30 April 1944		
Psychoneurosis	2,468	50.9	49.3
Constitutional psychopathic state and alcoholism	316	45.9	54.1
Mental deficiency	59	23.7	76.3
Psychosis	333	2.7	97.3
Neurological disorders	685	70.9	29.0
Other	42	66.7	33.3
	1 May–31 August 1944		
Psychoneurosis	3,164	50.4	49.7
Constitutional psychopathic state and alcoholism	564	58.8	41.1
Mental deficiency	116	29.3	70.7
Psychosis	319	3.1	96.9
Neurological disorders	982	66.8	33.2
Other	54	46.3	53.7
	1 September–31 December 1944		
Psychoneurosis	2,221	58.0	41.9
Constitutional psychopathic state and alcoholism	525	77.7	22.3
Mental deficiency	71	35.2	64.8
Psychosis	371	1.3	98.7
Neurological disorders	822	66.7	33.3
Other	45	66.7	33.3
	1 January–30 April 1945		
Psychoneurosis	1,775	58.9	41.0
Constitutional psychopathic state and alcoholism	351	81.7	18.2
Mental deficiency	61	60.7	39.3
Psychosis	284	1.1	98.9
Neurological disorders	523	62.1	37.9
Other	25	80.0	20.0
	Total and average percent for 16 months		
Psychoneurosis	9,628	53.9	46.1
Constitutional psychopathic state and alcoholism	1,756	66.7	33.3
Mental deficiency	307	35.8	64.2
Psychosis	1,307	2.2	97.8
Neurological disorders	3,012	66.9	33.1
Other	166	62.0	38.0

Too many so-called constitutional psychopaths and inapt and intellectually retarded individuals were evacuated via medical channels, even though 81.7 percent of the psychopaths, alcoholics, and inapt and 60.7 percent of the "mental defectives" were returned to duty during the period (1 January to 30 April 1945). It must be recognized that a certain percentage of such individuals as were evacuated had developed disabling psychoneuroses or psychoses as secondary reactions to the underlying disability and were of sufficient severity to require medical disposition. Clinics concerning these types of cases and discussions of board proceedings (AR 615–368 and AR 615–369) that had been disapproved, which were held for unit commanders and medical officers, helped to correct misunderstandings and to clarify concepts of personality disturbances and disposition procedures.

The percent of all neuropsychiatric cases, returned to duty or evacuated to the Zone of Interior, that were psychotic remained practically the same (9.4 percent) as in previous report periods.

Incident to the closing and redeployment of several hospitals, an unusually large number of interhospital transfers was necessary, particularly in the months of February and April. As had been mentioned previously, this always resulted in having to evacuate to the United States many patients who otherwise could likely have been returned to duty.

The disposition of neuropsychiatric patients, with psychosomatic diagnoses, during the January–April 1945 period, is shown in table 68 (see also table 64). The bodily systems that were most frequently involved were the lower gastrointestinal tract, the respiratory apparatus, the skin, the upper gastrointestinal tract, and the cardiovascular system.

PROGRAM DEVELOPMENT

Many different procedures were initiated and carried out at various command levels by Colonel Kaufman (see ch. XII). From August 1944, Colonel Billings continued to carry on the educational programs, which have already been discussed, and also instituted several new procedures. Based on his experience with field troops and replacement depot medical and psychiatric problems, and as chief of the medical service of a large general hospital, Colonel Billings had little difficulty in making rapport with the agencies with whom he had to work in the interpretation and implementation of policies intended to advance mental hygiene. These activities will be outlined under general headings, the sequence of which has no bearing on their relative importance.

Hospital Facilities

The hospitals in the South Pacific, during the early days, were set up in floored tents, with the exception of those on Fiji and in New Zealand

TABLE 68.—*Disposition of neuropsychiatric patients, South Pacific Area hospitals, 1 January–30 April 1945, by psychosomatic diagnosis*

Diagnosis	Return to duty	Transfer	Evacuation to United States	Return to duty and evacuation to United States
Angina pectoris	1	3	1	2
Anorexia nervosa	1	0	0	1
Asthenia	5	0	1	6
Asthma	9	12	31	40
Asthma, bronchial	18	28	64	82
Cardiac disorder	21	1	8	29
Cardiospasm	1	0	0	1
Colitis, spastic	4	0	1	5
Constipation, atonic	1	1	0	1
Constipation, spastic	3	1	0	3
Dermatitis, neurogenic	1	0	0	1
Diabetes mellitus	0	0	3	3
Duodenal ulcer	2	23	42	44
Eczema	14	3	9	23
Gastric ulcer	0	3	5	5
Hyperhidrosis	1	0	0	1
Hypertension	3	1	1	4
Ill-defined conditions of the gastrointestinal tract	121	8	6	127
Miscellaneous	0	0	1	1
Narcolepsy	1	0	3	4
Nervous vomiting	3	1	0	3
Psoriasis	3	3	5	8
Pylorospasm	8	1	0	8
Syncope	4	1	0	4
Tachycardia	7	2	7	14
Urticaria	30	2	5	35
Total	262	94	193	455

Source: Essential Technical Medical Data, South Pacific Base Command, for April 1945, dated 15 May 1945.

where either existing permanent structures could be adapted for use or building materials were available for immediate use. As rapidly as possible, Quonset huts or plywood buildings were erected. In the first year, building materials were at a premium, and since little serious consideration was given to the psychiatric problem, the neuropsychiatric sections of hospitals were built in a haphazard way and usually appeared like poorly conceived prison buildings surrounded by a stockade fence. At times, the seclusion rooms were lined with steel airstrip matting and, in general, were dismal, uncomfortable, and placed the unfortunate patient admitted thereto in a most unsavory light in the eyes of his fellows. All this construction, initially, was left to the engineers, hospital commander, and

respective island surgeon. Their misunderstandings of psychiatry and fear of psychiatric patients were indelibly projected into the structures erected. On the same basis, many hospital commanders refused to allow nurses to care for the closed-ward patients. Thus, the results of patients' response to therapy can well be imagined. They behaved as they were expected to.

In general, open psychiatric wards were of the same construction as the medical and surgical wards and were, therefore, sufficiently adequate but showed that little thought had been given to the full utilization of the few nursing and attendant personnel available. For example, physicians' offices, if any were incorporated in the plans, were inadequate; the nurses' stations were so located that the nurse in charge had to leave her office to view her patients. In addition, wards were built too small, requiring a nurse or nurses and attendants to supervise two small wards instead of one larger one. As a rule, hospitals were built in accordance with the traditional temporary Army hospital layout, with the neuropsychiatric section wards on the surgical end of the hospital, or on that side of the main corridor.

When the 29th General Hospital arrived on New Caledonia, Colonel Billings was given permission by his commanding officer to arrange, if possible, with the engineers for neuropsychiatric ward "structural changes." However, changes in the layout of the hospital wards were not to be tolerated. The neuropsychiatric wards remained on the side of surgery. When The Surgeon General visited, in early 1945, he insisted that the open neuropsychiatric wards of this hospital be given up to orthopedics. Three H-shaped ward buildings, housing 35 patients on either side of the ward section (70 per ward), were planned and constructed with four private rooms, two offices for physicians, and a nurse's station on either side of the utility or middle section, built so that the offices protruded out into the ward giving the nurse a clear view of her ward at all times. The closed ward, using Transite as the outer wall and plywood for the inner one, was constructed in the form of a square, with court or patio, 40 x 60 feet, in the center, and was so built as to avoid all appearance of the usual neuropsychiatric ward.

No keys were used to enter any wards, the foyer was made attractive by staining and polishing the plywood paneling with shoe polish, and the rooms and wards were painted a pleasing color. (Paint procured by "midnight requisition.") This ward contained 18 seclusion rooms, and the wards could accommodate 41 other patients. Included also were two offices for physicians, and two improved continuous tubs, and the whole arranged to conserve nursing and attendant personnel. The ward was the most attractive and comfortable of any of the hospital. The plan of this structure was requested by and transmitted to the Eighth Service Command and Central Pacific Area.

No modifications of the inadequate neuropsychiatric structures in the area were possible because of lack of materials and need to keep new construction at a minimum. However, by education, hospital commanders were induced to dismantle many of the fences and to establish nursing services on the psychiatric wards. They were profoundly surprised at the beneficial effects obtained.

Utilization and Training of Medical Officers

The area was woefully understaffed by medical officers trained in neuropsychiatry. In August 1944, Colonel Billings began to indoctrinate island surgeons and hospital commanders with the necessity for rotating junior medical and surgical officers through neuropsychiatric sections for training. This was done to insure having a few more officers available to assist or to relieve those regularly assigned to the section; also, to orient physicians throughout the hospital in the early diagnosis and effective treatment of the innumerable minor psychiatric and somatization disorders that constituted the major problem in all medical wards and all outpatient clinics. This indoctrination was followed up by Medical Circular Letter No. 32, dated 28 September 1944, subject: "Medical Responsibility in the Conservation of Manpower." This directive which follows, probably the most effective distributed from the Office of the Surgeon, Headquarters, SPBC, was intended to give the ward, dispensary, battalion, and regimental surgeons additional prestige and a greater realization as to their responsibility in the real practice of medicine; to satisfy the commander who would do little that was not officially directed; and to close a little more firmly the door protecting medical channels from administrative abuse.

1. The manpower of the military personnel in the South Pacific Base Command is not being satisfactorily conserved nor fully utilized. Approximately 25 percent of all admissions to hospitals in this theatre have been for obvious psychiatric reasons, yet only 40 to 50 percent of all these patients were adjusted sufficiently while in hospitals to return to duty. The result has been that approximately 50 percent of *all* patients evacuated to the United States for medical reasons were considered psychiatrically disabled for duty in this area. "Psychoneurosis" was the diagnosis in nearly 60 percent of these neuropsychiatric cases.

2. This psychiatric problem confronting us is a serious impediment to the prosecution of the war as well as a challenge to medicine of both the present and future. It must be corrected now, yet to do so will be difficult so long as it is assumed to be essentially the responsibility of the psychiatrists. Psychiatric disorders are predicated on the accumulation of stresses, strains and factors that more often than not are in themselves simple, definable, and certainly correctable or preventable by the common sense approach of *any* medical officer in his daily contact with the patient and with those agencies having a bearing on the patient's daily life as a soldier.

3. The time to detect evidences of personality difficulty from the point of view of maintenance of manpower through prevention of disability is *before* the patient becomes a psychiatric case, per se. Therefore, the places in which to accomplish this are in the

organization, in the battalion aid station, the dispensary, out-patient clinic and the medical and surgical wards of hospitals. Thus, the early detection and more effective correction of potential and early psychiatric disorders becomes the responsibility of the general medical officer.

4. Medical officers must realize that, especially in war, *their primary responsibility is to the Service* rather than to the individual patient. The first responsibility of the entire medical department is the maintenance of the fighting strength of the Army and all other responsibilities either support this one or are secondary to it. Medical officers must accept the responsibility of decision between real disability, and no significant disability in fact. Every officer of the Army who is responsible for soldiers must make decisions which influence the health and lives of those soldiers and the present and future integrity of our great nation. Commanders cannot evade this responsibility by passing it on to the next echelon, and medical officers will not be permitted to do so. In order to arrive at such decisions, facts must be known. Facts in a medical case can be elicited by procedures that have withstood the tests of time and practice.

5. Direct clinical examinations should be and will have to be determined by the physician's sound initial estimate of the medical situation in each case. This initial estimate is based on the attainment of the patient's complete complaint, present illness and personal history accomplished in accordance with the principles of sound medical practice and those set forth in Chapter 4, TM–8–260, 16 July 1941. Too infrequently the patient is never given a chance to explain his complete complaint and history. Far too often the patient is only allowed to dribble out his story day by day. With each fresh complaint (which probably existed from the start) new examinations, consultations and laboratory tests are initiated. By the time this gamut has been run, the patient becomes unduly alarmed, acquires an unhealthy attitude or so many hospital days have elapsed that the patient begins to manifest a fulminant case of "Hospitalitis" or becomes a dispensary recidivist. He then is psychologically well on his way to invalidism.

6. If the average medical officer avails himself of the facts of the case, his common sense and personal experience will make it possible for him to correct to a healthy form many of the attitudes, misunderstandings and simple psychological problems that, if unattended, so frequently conspire to produce a large percentage of the psychoneurotic reactions accounting for much of the non-effectiveness in this theatre. Positive diagnosis of disability must be thoroughly defensible. *Diagnosis will not be made by exclusion!* The failure to detect the true nature of many of the cases to be found in our dispensaries and hospitals is a serious reflection upon the intelligence and training of the medical officer, upon his ability to apply himself and can perhaps even connote far reaching and serious implications for the future.

7. In order to meet this challenge, to discharge the existing responsibility and maintain more effectively the mental health of military personnel, the following suggestions are made:

a. The medical officer *must not:*

(1) *allow* the soldier who is actually feigning illness to occupy a hospital bed unnecessarily long and to usurp the time of the medical officer, consultant, laboratories, etc.

(2) *contribute* to the development of minimal personality-situational difficulties of the soldier into full-fledged, fixed and crippling psychiatric illness by failing to obtain the basic facts of the case and instead relying essentially on innumerable consultations and tests to reveal the clinical answer.

(3) *forget* that most often the first evidences of maladjustment and developing psychiatric non-effectiveness are bodily complaints.

(4) *permit* the medical department to be utilized as an agency for the removal of undesirable soldiers and officers who have at the most but minor physical or mental disability.

(5) *refer* unnecessarily the dispensary patient to hospitals nor the hospital patient to neuropsychiatric consultants or wards for by doing so this may make minimal symptoms become unduly important.

(6) *overlook* the fact that the closer to the site of the inception of his difficulties or illness that a soldier is treated, the greater are the chances that he will be returned to duty.

b. On the other hand, in order to meet satisfactorily this challenge to medicine as a whole and more adequately conserve manpower the medical officer *must:*

(1) *obtain* the patient's complete complaint immediately, evolve the present illness and personal history, make his estimate of the clinical situation, complete the necessary examinations and institute common sense and expedient treatment.

(2) *make* the diagnosis of psychoneurosis with caution and on *facts and degree of disability*—the diagnosis *alone* is insufficient to excuse anyone from duty.

Education Regarding Personnel Adjustment

In the summer of 1944, when War Department Technical Bulletin (TB MED) 12, dated 22 February 1944, subject: "Lecture Outlines for Officers on Personnel Adjustment Problems," was received, steps were taken to interpret the data to all officers in the command. In August and September, through written instructions which the island surgeons were requested to distribute, this teaching program was made continuous to assure that all new incoming officers would receive the indoctrination. Colonel Billings maintained contact with all lecturers, who were carefully chosen, so that questions could be answered and discussions made following the lectures in the light of the newest War Department and theater policies.

The enlisted personnel of many units were given lectures on similar material adapted particularly for them. When TB MED 21, dated 15 March 1944, subject: "Lecture Outlines for Enlisted Men on Personal Adjustment Problems," was received, the lectures to enlisted men became theaterwide. In conjunction with the lectures to officers and enlisted men, attempts were made to maintain good morale and to debunk rumors through the interpretation of general policies regarding rotation and reassignment in the light of existing local conditions. These meetings were always attended beyond expectation, and the interest shown was indicative that all personnel needed, wanted, and were prepared to accept information regarding personality functioning and adjustment.

These meetings were announced by the respective island surgeons, and all unit commanders and medical officers were invited for informal discussion, social hour, and dinner. Some of the basic but unannounced purposes of the meetings were:

1. To allow the neuropsychiatrists an opportunity to discuss constructively their mutual clinical and administrative problems.

2. To bring the nonpsychiatrist into the discussion as a contributor and thereby increase his interest in learning more of personality malfunctioning and the remedial measures within his grasp.

3. To educate the nonpsychiatrist in the principles of personnel adjustment and practical psychotherapy and to give him expert advice on current problems in his unit.

4. To allow the hospital neuropsychiatrist an opportunity to improve his perspective through becoming better acquainted with the actual functioning of the field and service units and the various situations to which his patients must be prepared to return.

5. To correct misunderstandings that so frequently arose, because medical officers in aid stations, dispensaries, and some hospitals were relatively isolated from other medical officers by distances and pressure of work.

6. To find more adequate methods of translating the facts of psychiatric medicine into such terms as would make psychiatry understandable to and usable by more individuals.

Island Medical Meetings

General medical meetings.—By direction of the Chief Surgeon, Headquarters, SPBC, in the summer of 1943, all island surgeons instituted and held island medical meetings, at least once each month, for all Medical Department officers and nurses. The Navy and Air Corps medical officers attended enthusiastically and participated to a considerable extent. The meetings were held at the different hospitals in rotation and consisted, as a rule, of a scientific session of 2 to 2½ hours,[10] followed by a tour of the hospital to see new innovations and improvements, and then dinner. These sessions did much to keep medical practice on a high level through competition and by a free give-and-take of scientific information. By the end of 1944, it was arranged that whenever suitable material and speakers were available neuropsychiatry have an equal place with medicine and surgery on the program.

Special psychiatric meetings.—To further the neuropsychiatric education of medical and nonmedical officers for creating better teamwork in preventive and therapeutic psychiatry and to improve the management of personnel adjustment problems, special psychiatric meetings, in addition to the regular monthly and semimonthly island medical meetings, were inaugurated and proved successful in all island commands of this theater. These meetings were inaugurated in the latter part of November 1944 and were continued to the virtual end of the theater.

As a rule, the procedure adhered to in these meetings was for a short paper to be given as a guide to and stimulator of discussion. The meeting was then opened for informal discussion, questions and answers, and presentation of problems. The attendance was beyond expectation. Between

[10] Each meeting consisted of four sections meeting simutaneously; namely, medical, dental, medical administrative, and nursing.

20 and 60 medical, line, and Chaplain Corps officers attended regularly on the different islands.

Liaison Between Units and Hospitals

During the latter part of the 25th Infantry Division's stay (December to April 1944) at New Caledonia, Colonel Billings, acting as liaison between the division surgeon, island command surgeon, and the hospitals, arranged for the 25th Division's psychiatrist to forward an informal memorandum with each neuropsychiatric patient referred for hospitalization. This note contained an evaluation of the soldier's or officer's performance, efficiency, personality makeup, aptitudes, and liabilities; the patient's behavior in general and what his unit thought of him in terms of future adjustment or duty. These data proved of great value in final evaluation, treatment, and disposition; in the patient's subsequent adjustment in the Army; and in the saving of both hospital days and many individuals who otherwise would have been lost to the organization. The 25th Division's surgeon found this procedure so worthwhile that he urged his regimental and battalion surgeons to do likewise when referring other types of casualties for hospitalization. The hospitals had the greatest cooperation in obtaining further information regarding patients by merely forwarding, via message center, an informal note requesting the required data. A similar arrangement was effected between the 27th Infantry Division and hospitals at Espìritu Santo and later between the 81st Infantry Division and hospitals on New Caledonia.

One of the greatest needs of the service and combat unit medical officer was an abstract of the clinical findings of the hospital and its recommendations when a patient was returned to full duty. Because a limited number of clerk-typists and typewriters were available to station and general hospitals, it was an impossibility for hospitals to furnish this information. It was the consensus of all hospitals and all units being rendered medical service that manpower would be conserved more effectively and many neuropsychiatric casualties avoided were it possible for the medical installations to be allowed one or two more clerk-typists and an equal number of typewriters for the purpose of preparing summaries of the hospital findings, therapy, and recommendations on all but the simpler cases of patients returning to duty.

To breach this gap, the various service and combat units were urged to send liaison officers frequently to the hospitals to discuss the cases of their men or officers with the medical officer in charge of the specific patient. This procedure proved only moderately satisfactory, not because of lack of interest or initiative but rather because of the time factor and pressure of work.

In a similar way, liaison was gradually established between most service units, their medical officers, and hospitals.

To make the liaison more effective and, at the same time, improve outpatient recordkeeping, prevent "buck passing," and protect the clinical records and abstracts from being perused by the patient, Colonel Billings assisted hospitals and clinics to improve the recording of clinical data, the transmission of abstracts and copies of the outpatient findings to the unit medical officer, and the general efficiency of outpatient clinic operation.

Refresher Courses

The battalion and regimental surgeons, after a year or more in the field, rightfully considered that they were losing out in keeping abreast with medical practice, were envious of the hospital physician and often, as a result, developed attitudes that were very hindering to their effectiveness. Likewise, the average young dispensary physician, because he had not been told how to procure special supplies, became too dominated by his commanding officer, frequently showed lack of initiative after several months to a year, began to feel discriminated against, and developed the belief that the hospital medical officer had greater opportunities to advance in medicine. As a result, he became negligent, developed futility feelings, and in general lost his efficiency.

To improve this situation—to refresh both the field and dispensary medical officer in medical science, to contribute to their mental hygiene, and incidentally, to indoctrinate them with the principles of neuropsychiatry—an educational program was established. This permitted any medical officer, on application and approval by his commander, to attend a course, or courses, of instruction in a general hospital for 30 days. When such an officer was assigned to a hospital for training, a hospital physician was assigned as his replacement for the 30-day period. This improved the hospital physician's perspective and showed how better to serve and collaborate with confreres in the field. This rotation in duty improved cooperation between units and the medical service rendered, helped materially in the more effective reassignment and readjustment of personnel, and led to a decrease in hospital admissions for neuropsychiatric reasons from many dispensaries.

Specific hours of clinical work, lectures, demonstrations, conferences, and clinics with definite staff teaching assignments were outlined. Required outside reading was also designated. When an officer reported to hospital as a student, he knew immediately what was expected of him. (Some, naturally, took courses in the anticipation of a 30-day vacation.) No matter what course of study was pursued, the student medical officer was given as much orientation in somatization disorders and neuropsychiatry as could be crowded in.

In the course in neuropsychiatry, the student participated actively in all clinical work and received at least 3 hours a day of personal instruction in pertinent subjects. One battalion surgeon, a captain and later a major, 25th Infantry Division, was given nearly 5 months' training in neuropsychiatry preparatory to his being made division psychiatrist. This training was carried out at the 29th General Hospital under the supervision of Major Gilbert, Capt. Paul Haun, MC, and Colonel Billings, during the spring and summer of 1944. This type of teaching did much to make psychiatry more acceptable and usable by the military forces, at large, in the area, and definitely was a step forward in the integration of neuropsychiatry with medical and surgical practice.

CONSULTANT ACTIVITIES

Visits to Hospitals

Colonel Billings visited each island surgeon and hospital in the area on an average of once each month or 6 weeks, and oftener, as medical and psychiatric problems of importance arose. During these visits, he engaged in a multitude of activities, such as evaluating personnel; determining adequacy of hospital care; making ward rounds and holding clinics and informal discussions; attending medical and neuropsychiatric meetings; directing the strategy of widespread neuropsychiatric indoctrination; checking on the operation of disposition boards; surveying and making recommendations for the improvement of rehabilitation programs; encouraging medical officers and units to take an interest in and publish their experiences in the hospital's ETMD (Essential Technical Medical Data) reports; interpreting policies dealing with medical personnel and patients; and consulting on special cases. At times, it was distressing that no clinical psychologists or social workers were available to the theater, with the exception of one psychologist who joined the 8th General Hospital in February 1945.

Association With Headquarters Staff Sections

By careful work and friendly associations with key personnel, all headquarters staff sections were made aware of the psychiatric problems in the South Pacific Base Command and how through cooperative work much could be done to decrease the incidence of the problems. As the members of the headquarters were alerted for movement to Luzon, arrangements were completed to establish a traveling clinic on administrative readjustment and disposition of patients. A member of the following sections, in addition to the neuropsychiatric consultant, participated: G–1 (personnel), Judge Advocate General, Special Services, and Information and Education. The plan was to visit various areas from time to time and

hold a "dry clinic," using board proceedings that had come to headquarters for review and final action. It was believed by all sections that this project would bear enough fruit to warrant its being placed on the educational agenda for Operation OLYMPIC.

The Commanding General, SPBC, was kept acquainted with all pertinent problems. The reception of complimentary remarks from The Surgeon General in the publication *Health* and replies to ETMD reports assisted greatly in keeping alive the commanding general's interest in neuropsychiatry. The result was that little if any difficulty was ever encountered in publishing and distributing psychiatric information over his name.

SCHOOLS OF MILITARY NEUROPSYCHIATRY

School for 27th Infantry Division

In accordance with letter, Headquarters, USAFPOA, subject: "Schools of Military Psychiatry," 29 November 1944, a school of military psychiatry was opened on 3 January 1945, at Espìritu Santo, for the medical and line officers of the 27th Infantry Division which was, at the time, staging for another combat operation (Okinawa).

The school was held in a tent ward building in the evacuation section of the 25th Evacuation Hospital. A U-shaped table of roughhewn lumber was constructed within, nearly filling the tent, so that the students could arrange themselves about the discussion leader and the patients who were used to illustrate nearly all subjects in the curriculum. Formal lecturing was kept at a minimum and, when indulged in the talk, was brief and delivered so as to promote "out-loud thinking" and discussion on the part of the group. Incidentally, through the ventilation of the students, personal and group, disturbing beliefs, attitudes, and discontents were brought into the open and could be corrected or modified and also used as clinical illustrations of dynamic factors at play in the patients. The school, therefore, was also of mental hygiene value to the physicians. The students from the 27th Division and, later, those from the 81st Infantry Division said: "You fellows took psychiatry out of the striped tent for us"—implying that it became a more tangible and practically applicable field of medicine.

In this school, as in the second one to be discussed later, most faculty members were present at all sessions and acted as a teaching congress; that is, one was leader but, in the event a point was not adequately made, another member "picked up the ball," as it were. This made for clarity, emphasis, keeping to practical fact, and served to maintain continuous interest even though the temperature was from 110° to 120° F.

The clinical facilities of the 25th Evacuation Hospital and of the adjacent 122d Station Hospital were utilized. At the beginning of training, after an introductory lecture and the practical demonstration of the exami-

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nation of a patient unknown to the examiner and a brief discussion of examination technique, students were sent to the hospitals to examine patients without help or the aid of clinical records. This was to reassure them that they had not forgotten their medical training, knew more about psychiatry than they thought, and by use of common sense could understand the average patient's problem and visualize therapeutic opportunities. Later, instructors reexamined these cases with the students and discussed the dynamics, diagnoses, prevention, and treatment. By this means and by emphasizing the problems of the patient used in various demonstrations, the instruction was kept practical for the combat medical officer.

On the afternoon of the day following the conclusion of the scheduled teaching, the faculty, on the invitation of the Commanding General, Maj. Gen. George W. Griner, Jr., 27th Infantry Division, discussed personnel adjustment problems with all the line officers of the division. The teaching was conducted in an informal way, roundtable forum fashion.

The attendance of officers at the course of study was as follows:

Attending full course of study:	
All divisional medical officers	32
Local hospital medical officers	9
Line officers receiving 4 to 5 hours of instruction	99
Chaplains receiving 4 to 5 hours of instruction	13
Line officers receiving 1 hour of instruction	225
Total	378

School for 81st Infantry Division

A second school of military psychiatry was opened on 12 February 1945, at New Caledonia, for the medical and line officers of the 81st Infantry Division. The school, directly supervised by Colonel Billings, was held in the conference room of the 29th General Hospital, a much more comfortable setting than that in which the first school was held. The clinical facilities of this hospital and of the adjacent 8th General Hospital were utilized. Classes, discussions, and demonstrations were held, both in the wards of the hospitals and in the conference building, from 0800 to 1150 and from 1300 to 1550, 6 days per week. Two courses, "Dermatology in Combat," for division medical officers were held on the 2d and 4th days, respectively, from 1900 to 2030.

Because of the divisional training schedule and the distances between divisional and hospital areas involved, it was impossible for line officers to attend any of the clinical meetings as was the case in the school given for the 27th Infantry Division. However, all chaplains of the division did attend class during some of the instructional hours.

On each of two evenings, 14 and 21 March 1945, in the 81st Infantry Division area, 1½ hours of orientation and instruction (for a total of 3

hours of instruction) were given to all regimental, battalion, and company commanders, G–1 and S–1 officers, and other interested officers. The Commanding General, Maj. Gen. Paul J. Mueller, 81st Infantry Division, his staff, and officers totaling 300 attended these meetings. Colonel Billings and the 81st Division psychiatrist and the psychiatrist of the 17th Field Hospital, attached to the division, acted as instructors and monitors at these meetings. The teaching was conducted in an informal, roundtable forum fashion, utilizing clinical cases extensively.

The attendance at the course of study was as follows:

Attending full course of study (45 hours of instruction):	
All divisional medical officers	67
Local hospital medical officers	4
Total	71
Receiving 4½ hours of instruction:	
Chaplains	17
American Red Cross representative	1
Total	18
Receiving 3 hours of instruction:	
Line officers	300
Total officers instructed	389

PUBLICATIONS

Education, transmission of theater policies, implementation of policies and directives from higher headquarters, dissemination of experience of different hospitals and theaters, development of medical competitive spirit, and advertising the importance of neuropsychiatry were accomplished through distribution of various publications, especially medical circular letters,[11] in addition to the methods previously discussed.

Many unit commanders failed to acquaint their staffs with ETMD reports and tendered reports prepared solely by themselves. These were inadequate. At times, hospital staffs which did have the responsibility for preparing these reports were uninterested, chiefly because they assumed it to be merely more "paperwork in order that a consultant in headquarters could write glorified reports." When the consultants explained the value of the reports, hospital commanders and island surgeons forwarded the complete reports to Headquarters, SPBC. When the headquarters' final ETMD reports were then circulated among the medical officers in the units, a greater interest was shown by all and contributions of value began to be received. Also, a competitive spirit between units developed, and medical officer morale was benefited.

[11] These publications, if they dealt with medicine or neuropsychiatry, were prepared by the consultant in these fields.

CONVALESCENT RECONDITIONING PROGRAM

Various convalescent reconditioning programs began to develop in the area in late 1943, chiefly because the neuropsychiatrists and orthopedists, particularly, felt a great need for some adjunctive therapeutic measures. The 18th, 29th, and 39th General and the 25th Evacuation and 20th Station Hospitals had some type of program in operation by the end of 1943. The 29th General Hospital program was proclaimed by General Maxwell in August 1944 as being the best in the area. One of its features was the orientation lecture given once a week to all newly admitted patients. At this time, the composition of the staff was described and the policies and rules of the hospital were explained—that the hospital was not to be considered a way station to the United States despite what they had been told, and also what the hospital would and would not stand for.

In April 1945, Medical Circular Letter No. 46, Headquarters, SPBC, subject: "Convalescence and Reconditioning in Hospitals," was issued as a manual on convalescent reconditioning. By this time, at least one medical or MAC (Medical Administrative Corps) officer from each hospital had received the course of instruction at the Information and Education School in Lexington, Va., and had returned to the theater. Capt. (later Maj.) John D. Gillaspie, MC, of the 29th General Hospital, a mature physician, interested in reconditioning and a recipient of training at the Lexington school, was placed in charge of all programs in the theater under the direction and supervision of the consultant in neuropsychiatry. The Commanding General, SPBC, had directed that the Surgeon, Headquarters, SPBC, assume responsibility for the initiation and direction of reconditioning in the command. Captain Gillaspie, armed with motion picture films and medical circular letters, visited and surveyed all the hospitals and advised regarding the adaptation of the plan to the particular unit. He supervised the programs thereafter. The results were astoundingly good in that hospital patient morale improved, hospital days were decreased appreciably, hospital dischargees returned more often to duty in better physical condition, and premiums formerly gained from sojourning in hospital were diminished.

INVASION OF JAPAN

In May 1945, as already stated (p. 479), the personnel at Headquarters, SPBC, moved to Luzon, as Headquarters, ASCOMO, under the command of General Gilbreath. The mission, Operation OLYMPIC, was to prepare for and carry out the logistic support of the Sixth U.S. Army in the invasion of Japan.

On arrival in Manila, the entire surgeon's section became immediately immersed in the preparation of plans for supply, hospitalization, evacua-

tion of casualties, and care of casualties in the anticipated operation. Colonel Billings acted as liaison officer with the Sixth U.S. Army, in addition to his other duties, visiting the major units still in active combat on Luzon. All activities were coordinated with the Headquarters, AFWESPAC (Army Forces, Western Pacific, and Headquarters, AFPAC (Army Forces, Pacific). Headquarters, ASCOMO, as it began to build up to TO strength, organized three large base command headquarters and prepared to organize a fourth. In a series of conferences and daily contacts, the surgeons of these base headquarters were instructed in the medical policy and thoroughly acquainted with the plan of the Chief Surgeon.

Through the cooperation of operations and hospitalization officers and the engineer and other sections, arrangements were made to prepare hospital layout plans and neuropsychiatric ward construction to comply with the concepts previously discussed and recommended by the neuropsychiatric consultant.

By the end of August 1945, the following that would have a bearing on neuropsychiatric practice, based on previous mistakes and successes, were completed, with the assistance of other consultants, by the Chief, Professional Services:

1. Preparation of a diagnostic-code manual for the recording of all neuropsychiatric, medical, and surgical casualties for machine records tabulation. It was planned to initiate this type of recording by D+7 to 15.

2. Plans for the initiation of a simple but accurate machine record tabulation and analysis of all data referred to in (1) above.

3. Plans for the establishment of evacuation centers for "boarded" cases as soon as the operation became firm (estimated at D+120).

4. A section placed in the administrative order requiring all hospitals to be prepared to set up and receive up to 50 percent of their patient capacity within 7 days after their arrival at this area.

5. Preparation of surgeon's letters and technical circulars elucidating the basic policies in medical practice to be followed by all medical units, and intended to alleviate some of the factors previously referred to as important in the production of psychiatric casualties.

6. Formulation of the duties of ASCOMO consultants.

7. Detailed plans for the consultants, assisted by those from the Surgeon's Offices, Headquarters, AFPAC, AFWESPAC, and Sixth U.S. Army, to survey, orient, brief, and prepare all medical units for the operation. These plans included those for the evaluation of the professional qualifications of Medical Department personnel and readjustment of them to attain as much professional strength as possible in all units.

8. Plans for the ASCOMO consultants to assist those of the Sixth U.S. Army in giving refresher courses to medical and line personnel in the proper handling of battle casualties during the brief period allowed for staging before the units were mounted.

9. Preparation of a new manual on convalescent reconditioning.

10. Plan for the running of health columns in the daily ASCOMO *News* and the weekly printing of attractive cartooned pamphlets for distribution to all hospital patients. These pamphlets were to carry a series of short articles explaining the "little things" that are misunderstood by hospital patients, to orient them in hospital procedures and in the basic facts of prevention of disease and personality disorders.

In addition, tentative plans were formulated for the inauguration of base command medical and special neuropsychiatric meetings, clinics for line officers, and neuropsychiatric schools and clinics on administrative disposition problems.

When these plans were practically completed, the enemy capitulated. All activities planned for the specific readying of units for combat were dropped.

CHAPTER XIV

Southwest Pacific Area

S. Alan Challman, M.D., and *Henry A. Davidson, M.D.*

The Southwest Pacific Area was more widely known as Gen. Douglas MacArthur's command. It included Australia, New Guinea and adjacent islands, and the Philippines. In early 1942, when the Japanese took the Philippines, General MacArthur established a headquarters in Melbourne, Australia. The Japanese continued to advance eastward and southward in the Pacific, establishing bases on New Guinea and on other smaller Pacific islands. The first U.S. military objective, therefore, was to prevent the capture of Australia and New Zealand. Then the task became one of mounting a counteroffensive and of recapturing or neutralizing the Japanese bases so that U.S. Army forces could move up to a point where Japan itself could be effectively attacked.

STRATEGY AND TACTICS

Initially, General MacArthur's command comprised only approximately 25,000 United States and 7,000 Australian troops. During the second quarter of 1942, reinforcements poured into the Southwest Pacific Area, which included the 41st and 32d Infantry Divisions, the Australian 7th Division brought up to full strength, small naval elements, and additions to the Army Air Forces.

MacArthur's first action was to bolster the threatened Port Moresby area in New Guinea. Next was the seizure of sites in New Guinea from which to launch offensive action. The first such advanced base, Milne Bay on the southeast tip of New Guinea, was established by the Australians in August 1942. The second advanced site, almost directly across from Port Moresby on the northern coast of New Guinea, was selected because grassy plains in this area provided for airfields, and the nearby seacoast village of Buna could be made into a port facility.

On 17 July 1942, the troops began departing from Port Moresby, via the Kokoda Trail, over the Owen Stanley Mountains, for the Buna-Gona region. But the use of mountain trails proved impractical for mounting a large-scale attack. Shipping was at a premium and risky. For this reason, troops were airlifted to airstrips south of the objective. The remaining distance was covered by approach marches through coastal swamps along the New Guinea shoreline. However, artillery could not be transported, and

the struggle for the Buna-Gona area was won without heavy weapons.

The spring of 1943 saw American and Australian elements probing up the New Guinea coastline toward the Lae-Salamaua area (see map 21). However, U.S. divisions in the Southwest Pacific Area were relatively unoccupied during mid-1943. The 32d Infantry Division and elements of the 41st Infantry Division were pulled back to Australia for rest and recuperation. From March to August 1943, two Australian divisions, assisted by two U.S. regiments, pushed northwest by short stages through the swamps toward Finschhafen and the Huon Peninsula. The 162d Infantry Regiment of the 41st Division went into Nassau Bay, at the end of June, and continued until mid-September to assist in the final reduction of Salamaua. Participating in the capture was the U.S. 503d Parachute Infantry Regiment which, on 5 September, dropped at Nadzab in the Markham Valley. The unit immediately secured the airstrip, thus achieving tactical surprise by this first use of paratroops in the Pacific. The Australians rapidly struck from Nadzab, overrunning enemy positions at Lae Salamaua, and finally Finschhafen, by 1 October 1943. The islands of Woodlark and Kiriwina were seized, providing additional airstrips.

A decision was made to bypass the heavily fortified Japanese base of Rabaul on the island of New Britain. To provide protection for the right flank of his offensive, General MacArthur needed airstrips and warning stations on New Britain. For this reason, two sites were chosen, Cape Gloucester in the north and the Arawe area on the south of New Britain (see map 21). Both objectives were invaded in mid-December 1943, and secured by mid-January 1944. Also begun in December 1943 and completed in early January 1944 was the seizure of Saidor, farther up the coast of New Guinea.

Offensive operations during 1943 dented Japan's outer defensive perimeter. In 1944 that perimeter collapsed, and the Japanese withdrew to an inner defensive line.

Continuing from the previous year were operations destined to clear the Vitiaz-Dampier Straits between New Guinea and New Britain and thus allow SWPA (Southwest Pacific Area) forces freedom of action in their push northwestward toward the Philippines.

Some 200 miles northeast of New Guinea were the Admiralty Islands which possessed not only space for airfields from which to aid in the reduction of Rabaul but also had protected deep water harbors. Aerial reconnaissance indicated that Manus, the major island of the Admiralty group, was all but undefended. Seizing this opportunity, parts of the 1st Cavalry Division were landed as a "reconnaissance in force" at Los Negros, the adjacent island to Manus. There, leading elements were reinforced by the remainder of the division during the first 2 weeks in March 1944.

Capstone of the CARTWHEEL Operation (advance toward Rabaul) that isolated the Japanese bastion of Rabaul and left some 100,000 enemy

troops to sit out the rest of the war was the seizure and occupation of the small island of Emirau. Northwest of Rabaul, some 230 miles, and 180 miles east of Los Negros, Emirau was substituted for well-defended Kavieng on the northern tip of New Ireland (map 24). On 20 March 1944, as the fight for Los Negros was nearing midpoint, a Marine force was landed against no opposition on Emirau.

With the right flank well protected, SWPA's ALAMO force (Lt. Gen. Walter Krueger's Sixth U.S. Army) proceeded northward up the coast of New Guinea. In the 6 months after the seizure of Los Negros, some six major amphibious landings were conducted successfully with relatively small losses of American lives. Striking first in a dual operation on 22 April, ALAMO forces secured bases at Hollandia and blocked positions at Aitape. On 17 May 1944, the seizure of Wakde Island and the adjacent coastal region of Sarmi advanced SWPA forces another 150 miles along the New Guinea coastline. Ten days later, ALAMO forces sent the 41st Division against Biak Island, initiating a lengthy struggle for airfields close to the Philippines.

Another leap was made on 2 July to the island of Noemfoor, some 75 miles west of Biak, thus shutting off the Japanese route for reinforcing Biak. On 30 July, 6th Infantry Division elements struck in the Sansapor-Mar area of the Vogelkop Peninsula, almost 200 miles from Noemfoor. August was used for consolidating and reallocating forces. In mid-September, the 31st Infantry Division, reinforced by elements of the 32d Infantry Division, moved from Vogelkop, over 300 miles of the Pacific, and invaded the island of Morotai (approximately 300 miles from the Philippines) as the CPA (Central Pacific Area) forces struck in the Palaus (map 25).[1] The next move would be to the Philippines!

AREA CHARACTERISTICS

For 3 years, from 1942 until 1945, SWPA campaigns were fought through completely undeveloped terrain in New Guinea and adjacent islands. No buildings, roads, water systems, powerplants, ports, agriculture, or other local materials were available. There were only jungle, coconut groves, kunai grassflats, rain, mud, mosquitoes, and flies to contend with. These circumstances had a major determining effect not only on the fighting itself but also upon the whole character of the medical problems encountered. It seems a conservative guess that 85 percent of the military effort had to be spent in construction and supply. Even hospital personnel were forced to spend weeks or months in hospital construction before they could care for patients.

[1] For further detailed information on the New Guinea campaign and related offensives, *see* (1) Milner, Samuel: Victory in Papua. United States Army in World War II. The War in the Pacific. Washington: U.S. Government Printing Office, 1957; (2) Miller, John, Jr.: Cartwheel: The Reduction of Rabaul. United States Army in World War II. The War in the Pacific. Washington: U.S. Government Printing Office, 1959.

MAP 24.—Southwest Pacific Area and South Pacific Area forces bypass New Britain.

MAP 25.—Amphibious assaults in the Pacific, January to September 1944.

Impact on Medical Operations

After the Buna-Gona campaign in November and December of 1942, U.S. fighting troops could not move forward in attack until bases had been constructed in the jungle for logistic support. From a medical standpoint, this meant few battle casualties but a preponderance of sickness, injuries, and psychiatric cases. Since combat troops were staged at a base between engagements, it also meant that, except when combat landings were made, most of the hospital cases arose within or close to a base. A large proportion of the military personnel in the Southwest Pacific were service troops, such as in medical, engineer, signal, quartermaster, ordnance, and headquarters units. The air force installations were also, invariably, close to a base, and the combat divisions or teams were frequently staged at a base—before or between engagements with the enemy. This had a determining effect upon the location of medical installations in the Southwest Pacific Area. Medical installations should be as close as possible

to the point where casualties occur, and in the Southwest Pacific throughout the war, this point was most often in the base area.

The climate and terrain had another profound effect upon all medical operations in that it took so long to set up hospitals in a jungle. Here, before the most primitive tent hospital could be established, the jungle growth had to be cleared, roads had to be built, and water supply and surface water drainage had to be furnished. Transportation forward was always a bottleneck, for supplies and personnel moving up to a new base and to medical installations had an understandably low priority. Fighting troops and their supplies were of paramount importance, and it was easier to evacuate patients to the rear in transportation facilities returning otherwise empty to their source of supply than to bring hospital necessities forward. It took from 3 months to a year or longer after starting a base before hospital construction had advanced to a point where psychotic patients could be detained for treatment and evacuation to the United States. Much of this time would be spent by hospital personnel in clearing, constructing, and setting up tents and buildings.

The primitive jungle, the transportation bottleneck, and the mud were adversaries of such importance that they had a telling effect upon almost everything that was done medically in the Southwest Pacific Area and must be borne in mind when considering the history of neuropsychiatric work there.

Organization of Medical Services

Unique to the Southwest Pacific Area was the almost complete separation of medical services within the Ground and Air Forces on the one hand and the SOS (Services of Supply), on the other. This was not found in any other theater of operations. The theater chief surgeon, all the hospitals, and the professional consultants operated within the SOS organization and had little or nothing to say about medical services "up front." Until a ground or air force soldier entered a hospital as a patient, his medical care was not the concern of the theater surgeon's staff. While this was obviously an awkward arrangement, it actually worked out better than it sounds—perhaps because of the other unusual characteristics of the theater.

The story of neuropsychiatry in the Southwest Pacific Area must be viewed against the background of the general situation which pertained in all military efforts within the theater. It can be said that 1942 was a period of bewilderment and naivete in everything. Grievous mistakes were made everywhere, but they provided the basis for learning what would not work. In 1943, combat activity was light while "we licked our wounds," as it were, digested experiences, and came up with much better answers for particular problems. Everyone also came to know which members of the team could be relied upon. In 1944, this new knowledge was put into effect, and it oper-

ated successfully in most of the major areas of combat, supply, and medical service. The lessons of jungle warfare had been learned, and a reasonably reliable organization had been formed. In 1945, and in the last few months of 1944, we had to adapt to a different kind of war in reconquering the Philippines and getting ready to mount an attack upon Japan. This meant a tremendous influx of new troops and supporting services. Suddenly, the economy shifted from one of scarcity to one of plenty as the war in Europe came to an end. Considerable confusion arose again with changeover, but fortunately the war ended before the new personnel and organizational arrangements were battle tested.

NEUROPSYCHIATRY, 1942

Organization

The Army in the Southwest Pacific Area was divided into three components: (1) Ground Forces, (2) Air Forces, and (3) Services of Supply. In contrast to other areas and theaters, medical work was done largely within the SOS organization. As noted previously, the chief surgeon of the theater and his staff and all but a few hospitals were assigned to and functioned within this SOS organization.

The Ground Forces consisted of the Sixth and Eighth U.S. Armies. The medical components of these armies included a small surgeon's staff which supervised only the medical officers normally attached to a division or its subsidiary components. It was not until July 1944 that psychiatrists were included in army or division medical elements in the Southwest Pacific Area. The armies had no hospital facilities other than the shelters set up by clearing and collecting companies.

The Fifth and Thirteenth Air Forces operated in the Southwest Pacific with no assigned hospitals except three portable surgical units which were on loan. Maj. (later Lt. Col.) Maurice N. Walsh, MC, a competent psychiatrist from the Mayo Clinic, Rochester, Minn., was assigned to the Thirteenth Air Force (see ch. XXV). Although given mainly administrative duties, Major Walsh was able to exercise a beneficial influence upon psychiatric matters in his position. During 1942, virtually the entire organization for psychiatry in the Southwest Pacific Area was found within the SOS component.

During 1942, the chief surgeon's office of SOS headquarters consisted of approximately 20 medical officers, including the consultant in neuropsychiatry, Lt. Col. (later Col.) S. Alan Challman, MC (fig. 46). Initially, the duties and responsibilities of the neuropsychiatric consultant were vague and ill-defined. Few medical officers had had experience in working in an organization that contained professional consultants, and in no Army directive were the functions and duties of a professional consultant outlined.

FIGURE 46.—Consultants Section, Office of the Chief Surgeon, Headquarters, USASOS, Hollandia, New Guinea. Left to right: T5g. Nellie Hobbs, T5g. Helen Rine, Lt. Col. (later Col.) Eugene C. Eppinger, MC, Capt. Frank W. Sutterlin, MC, Lt. Col. I. Ridgeway Trimble, MC, and Lt. Col. S. Alan Challman, MC.

In the early years of the war, distinction between a line and staff officer was not clearly delineated or understood. The neuropsychiatric consultant began his work with the notion that it was his responsibility to improve the management of psychiatric patients in every way possible within the limits of the available personnel and material.

The hospitals operating under Services of Supply were organized under the tables of organization and equipment for field, evacuation, station, and general hospitals. In 1942, these tables of organization and equipment called for one psychiatrist in a 250- or 500-bed station hospital and for two psychiatrists in a 1,000-bed general hospital. Special supplies and equipment for neurology and psychiatry included only percussion hammers, tuning forks, and barbiturates. Medical components of the Services of Supply also included dispensaries and laboratories, but neither of these components had any psychiatric personnel or equipment. In brief, the Army organization for neuropsychiatry in 1942 provided mainly a psychiatric section under the medical service in each station and general hospital.

Between March and July 1942, 24 Army hospitals arrived in Australia from the United States. These medical units included four general hospitals

(1,000 beds each), 13 station hospitals (250 beds each), two field hospitals (500 beds each), two evacuation hospitals (750 beds each), and a medical regiment. The Australian Government made available, for U.S. Army use, some schools and private homes and a civilian hospital. During the few months after arrival, most of the hospitals began operating along Australia's east coast, from Melbourne to Townsville.

PHYSICAL FACILITIES

In 1942, only the U.S. Army 4th General Hospital, at Melbourne, had a closed ward for psychiatric patients. This hospital had been invited by the Australian Government to occupy the recently completed Royal Melbourne Hospital. The psychiatric closed wards at the Royal Melbourne Hospital, however, contained many features that were considered undesirable or, in some cases, dangerous, such as exposed horizontal piping, unprotected glass, and windows improperly guarded considering the upper floor location.

Open wards were available for psychiatric cases wherever a psychiatrist was assigned to a hospital, which differed in no way from the ordinary medical ward. In northern parts of Australia and in New Guinea, most hospitals were set up with canvas tents, but no provision was made for an office or examining tent or room for the psychiatrist. Thus, consultations and even the therapeutic interviews were, at first, conducted at the bedside.

For work in psychiatry, the only tools available were percussion hammers and tuning forks. There was no electroshock apparatus, no tubs for hydrotherapy, no psychological testing materials, no electroencephalographs, no occupational therapy or recreational equipment; only pajamas and bathrobes for clothing for "minor" psychiatric patients engaged in activity programs. Barbiturates were available in good supply, but in continual short supply was paraldehyde which was preferred for severely disturbed patients who had to be heavily sedated over prolonged periods, particularly while in the evacuation chain.

Records

Medical personnel data were incomplete and provided no information as to the specialized training of nurses or medical officers. There was no system of classifying specialists as to their professional proficiency or qualifications. No statistical records or reports were available to indicate the incidence of psychiatric disease or the number of cases remaining in the hospital with psychiatric diagnoses. It was impossible to determine such essential facts as the number of consultations held during the month, the number of new admissions, the number of discharges or transfers, the cases remaining in the closed and open wards, and the length of stay of psychiatric patients in hospital. Initially, the sole records which gave information

about the occurrence and fate of psychiatric conditions were disposition board proceedings which required a brief summary and diagnosis of each soldier recommended for evacuation to the Zone of Interior. In the Southwest Pacific Area, the chief surgeon required that all disposition board proceedings be approved by his office before a patient was designated for medical evacuation to the United States.

Regulations and Technical Instructions

In 1942, also, technical instructions or policy statements from the War Department or theater headquarters were almost nonexistent on matters of interest to psychiatrists and on the handling of psychiatric patients. Later, official policy statements on manpower conservation kept changing, so that it was difficult for the average medical officer who did not see new regulations to know the current policy. At certain times, a diagnosis of psychoneurosis was considered physically disqualifying for military service, and those persons who were found to have such a condition were medically separated from the service. At other times, conservation of available manpower became the paramount objective, and previous policies were reversed. Early in the war, changing policies were communicated to medical officers more often by word of mouth than by actual reading of the regulation. Understandably, differences of opinion existed among medical personnel as to what was expected of them in the disposition of psychiatric patients.

The Army had a definite policy with respect to the abuses of medical channels for the disposition or separation of personnel showing lack of adaptability or "constitutional psychopathy." However, the procedures required of the line commander in bringing men before a "Section VIII (sec. VIII, AR 615–361) Board" for administrative discharge were so formidable and legalistic that they seemed to put both the soldier and his commanding officer on trial. Also, higher headquarters generally tended to disapprove recommendations of "Section VIII Boards." Thus, even after the struggle of preparing the necessary legal and medical documents, and after a long wait for the action of higher authority, the organization often found itself required to keep the soldier on its rolls.

Line commanders complained that they did not have time, while fighting a war, to accomplish the lengthy process of "Section VIII" proceedings. This evoked sympathetic understanding in most medical officers with the result that neuropsychiatric services in hospitals were continuously confronted with the problem of what to do with the soldier lacking in adaptability or having habits and traits of character which made him undesirable in his organization. In this connection during the early years of the war, no satisfactory solution was found for disposing of homosexuals. An enlightened policy on this subject was established in 1944 and did operate successfully.

In 1942, adequate technical instructions were not available on diagnoses adaptive to psychiatric cases in military situations. A high proportion of such military casualties differed materially from psychiatric patients seen in civilian life. A surprising number of personnel had brief severe psychotic episodes; also seen were a large number of disgruntled soldiers with many physical complaints but few objective findings. There were toxic psychoses due to factors which were not clearly ascertained. Most psychiatric patients were diagnosed psychoneurotic or schizophrenic. In 1942 and early 1943, the term "psychoneurosis" was used to cover all forms of emotional maladjustment, and the term "schizophrenia" covered practically all psychotic states. Technical instructions from the War Department on diagnosis and disposition of neuropsychiatric cases were sorely needed.

Transportation of Patients

Another serious deficiency was the lack of accommodations for psychotic patients on the hospital ships and troop transports used for the evacuation of patients to the United States. Furthermore, the medical complement on hospital ships and troop transports seldom had training in the management of neuropsychiatric cases. The journey, by ship, from Australia to the United States required about a month, which constituted a medical hazard for the severely disturbed psychotic patients who were being evacuated.

Attitude of Military Personnel

In 1942, few medical or line officers expected that neuropsychiatric problems would occur in any large number in the U.S. Army. It was expected that such cases had been screened out before induction or during training; "psychiatric" persons who slipped through this screen were believed to make poor soldiers who could not be successfully treated. Such an attitude made it difficult to obtain approval and implementation of recommendations made to correct deficiencies in neuropsychiatric management. Thus, the tendency was to disapprove requisitions for such equipment as electroshock apparatus and occupational and recreational therapy materials on the ground that no prolonged treatment should be undertaken in the overseas theaters. The prevailing belief was that psychiatric patients were of no value and should be shipped back to the United States as soon as possible. In the initial phases of the war, this attitude was an obstacle to any improvement in neuropsychiatric treatment facilities. In the beginning, it was largely only the chronic complainer or troublemaker or the psychotic who was recognized as a psychiatric case.

Even within the Medical Corps itself, after it became apparent that psychiatric cases did constitute a problem of serious proportions, the

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provision of personnel and facilities for their care was not given a high priority by most hospital commanders and chiefs of service. The civilian experience of turning psychiatric cases over to a specialized public or private hospital did not lead hospital commanders (most of whom were civilian physicians) to consider a general hospital as having an active neuropsychiatric section. Interest in establishing a good operating room, an effective laboratory, and the prescribed number of available beds was paramount, and most hospital commanders would have been satisfied if some one else had provided care for the neuropsychiatric cases.

To change these negative or, at best, disinterested attitudes, it seemed necessary to (1) arrange for the early and appropriate diagnosis of psychiatric conditions, (2) gather data to show the frequency of such conditions, (3) show statistically how many hospital beds they were occupying at all times, (4) publicize the considerable loss of manpower due to the unnecessarily prolonged hospitalization or medical evacuation of psychiatric cases, and (5) relate this to the number of replacements coming into the theater from the United States. It was generally necessary to proceed step by step since a firm foundation had to be prepared to justify each new move before it could become an order.

Neuropsychiatric and Ancillary Personnel

During most of 1942, about a score of psychiatrists were present in the Southwest Pacific Area. Their number and assignment could not be ascertained exactly because of the general confusion, rapidity of changes, and rudimentary personnel data available at the time. No effective organization existed to help psychiatrists establish satisfactory neuropsychiatric services in the hospitals to which they were assigned. A consultant in neuropsychiatry arrived in Melbourne in July 1942. He was assigned to the theater surgeon's office, but during 1942, was occupied with general medical "paperwork." The Chief Surgeon, SWPA, believed that, during 1942, visits to the hospitals which were commencing operation within the theater would be premature since "there was not enough to see as yet."

If any nurses within the theater were known to have special training or experience in psychiatric nursing, their skills were utilized only on the basis of individual hospital practice. Chief nurses in hospitals discouraged specialization. They preferred to rotate nurses from one hospital service to another. The Army had no classification, during 1942, for clinical psychologist and psychiatric social worker, or for recreational or occupational therapists. If personnel with such training existed, they were lost among the enlisted ranks assigned to other duties.

In January 1943, approximately 1,400 medical officers were serving in the Southwest Pacific Area. Of these, only 35 had any experience or special training in neurology or psychiatry, but less than half had sufficient pro-

fessional maturity to work effectively without close supervision. In addition to responsibility for clinical diagnosis and treatment of patients, a military psychiatrist was required to select and train his staff of nurses and wardmen; to supervise construction of security wards; to procure nonstandard equipment for occupational therapy and recreation; to wrestle with technical military-administrative problems concerning "boarding"; to testify in courts-martial; to prepare psychotic patients for transportation; and to earn a measure of respect from skeptical medical colleagues before he would be called upon for consultation in any but obvious cases.

NEUROPSYCHIATRY, 1942-43

During 1942, considerable variability existed in the type and quality of neuropsychiatry provided. Of the 24 Army hospitals, 10 had no psychiatrists. The situation in each hospital with a psychiatrist depended upon the professional qualifications, administrative ability, and initiative of the psychiatrist; the ability of the medical and surgical staff to recognize psychiatric cases; the attitude of the hospital commander toward neuropsychiatry; and the availability of accommodations for disturbed psychotic patients. Some psychiatrists found understanding superior officers and were able to institute satisfactory services. Others through persuasion, pressure, ingenuity, persistence, and general know-how overcame resistances from higher authority and established workable arrangements. Many were unable for a variety of reasons to obtain the necessary conditions to function as psychiatrists. Most were confused as to what was expected of them. There was much conflict and contradiction in the opinions expressed on the subject and nothing authoritative to go by.

The neuropsychiatric consultant had no planning function in the fall of 1942 because there was nothing in his province to be concerned about. The Buna-Gona campaign which was being planned then was launched on 19 November 1942. The 32d Infantry Division and elements of the 41st Infantry Division fought this campaign and neither one had a division psychiatrist or any psychiatrist in their medical battalions. In fact, no psychiatrist was north of the Owen Stanley Mountain Range that separates north and south New Guinea. The local medical support of this campaign beyond the division's own medical elements consisted of several portable surgical hospitals (small units for surgery only) and the 2d Field Hospital. Little effort was made in any of these advanced medical units to hold psychiatric patients for a few days for possible return to duty. Battle wounded and soldiers stricken with malaria and diarrhea had swamped the forward field medical installations, and patients were evacuated by air to Port Moresby and thence by air and ship to Australia.

The 2d Field Hospital recognized 12 percent of its admissions during combat as "psychiatric." On the south side of the Owen Stanley Range, at

Port Moresby, the 10th Evacuation Hospital, which also had no psychiatrist, recognized 15 percent as psychiatric patients. In Port Moresby, also, were the 153d and 171st Station Hospitals. The 153d had two psychiatrists of meager experience, who had little success in returning psychiatric patients to duty. However, Capt. Robert W. Webb, MC, at the 171st Station Hospital, an experienced psychiatrist, was able to return 50 percent to duty. The hospitals in New Guinea had no closed wards, although a considerable amount of construction work was in progress, particularly in Port Moresby. Psychotic patients were evacuated to Australia by air as rapidly as transportation would permit. Air evacuation of such disturbed patients presented many problems which were resolved with remarkable ingenuity.

Medical, surgical, and psychiatric patients were largely evacuated to Army hospitals in Australia (fig. 47). They jammed the hospitals in and around Townsville and were sent down to Brisbane (figs. 48 and 49) and Sydney—at least a thousand miles from where they started (map 26).

In the last month or two of the Buna-Gona campaign, neuropsychiatric admissions for the entire Southwest Pacific Area ranged from 60 to 70 per 1,000 strength per year. This was more than twice the current neuropsychiatric admission rate in the United States and four times as high as

FIGURE 47.—Neuropsychiatric ward, 105th General Hospital, Gatton, Australia, 17 February 1943.

FIGURE 48.—Neuropsychiatric ward, 42d General Hospital, Holland Park, Brisbane, Queensland, Australia, 29 February 1944.

the average neuropsychiatric admission rate for the American Expeditionary Forces during World War I. At the same time, about 40 percent of the patients evacuated medically to the United States were neuropsychiatric.[2]

Diagnosis

A large proportion of the psychiatric patients, unrecognized in the first weeks of hospitalization, were kept on medical and surgical wards with "organic" diagnoses, but their symptoms were unrelieved by standard treatment. Most of these patients were sent to general hospitals where, finally, the diagnostic acumen of the staff, and the fact that these hospitals were the end of the overseas evacuation chain, usually revealed the illness as psychiatric. A patient either returned to duty or was brought before the board of medical officers to consider his disposition and the advisability of return to the United States as "medically unfit." Such disposition boards

[2] Annual Report, Neurospychiatry Branch, Office of The Surgeon General, U.S. Army, 1943.

FIGURE 49.—Exercise yard for psychiatric patients, 42d General Hospital, Holland Park, Brisbane, Queensland, Australia, 3 July 1943.

were permitted to operate only in general hospitals to insure competent medical diagnosis and disposition.

Of the patients recommended for evacuation to the United States, 50 percent were psychiatric. They were mostly diagnosed "psychoneurosis," but a surprising number carried such diagnoses as cephalalgia; pes planus, symptomatic; low back pain; and chronic indigestion. The neuropsychiatric consultant's initial paperwork duties related to a review of all disposition board proceedings. Many of these disposition board reports were returned to the hospital with a request for reconsideration.

When it became apparent that the theater was losing men through medical evacuation about as fast as new troops were being sent from the United States, persons other than psychiatrists took an interest in neuropsychiatric problems and their treatment.

Medical officers as well as company grade line officers generally believed that neurotics were "no good anyway" and that the Army would be better off without them. However, senior line officers, including regimental and division commanders, and their superiors, knew how difficult it was to obtain replacements and were against any "soft" medical policy of evacuating soldiers to the United States, unless clearly necessary. They were more likely to relate a neuropsychiatric problem to failure in leadership at the platoon or company level or to monotonous food furnished by the quartermaster or to some other deficiency in supply.

The large proportion of psychiatric cases presented to disposition boards furnished the first substantial evidence which drew attention to the

MAP 26.—Bases and evacuation routes, Southwest Pacific Area, 1942–43.

need for improvement in the neuropsychiatric services. The Army had no means by which to estimate the incidence of neuropsychiatric conditions. The statistical health report (WD MD Form No. 86ab) was primarily a sanitary report and did not require accounting from hospitals or dispensaries on neuropsychiatric conditions. This deficiency was pointed out to the chief surgeon, and a theater order was issued to include data on psychoses and minor neuropsychiatric disorders on the back of the form.

In December 1942, Col. Roy D. Halloran, MC, Chief, Neuropsychiatry

Division, in the Surgeon General's Office, in a letter to the Southwest Pacific, requested information on the treatment of mental disorders in the Southwest Pacific. That the letter was 6 weeks in transit illustrates the obstacles in communication with the Surgeon General's Office about professional problems. The reply to Colonel Halloran's letter described the situation then current, substantially as follows: [3]

Approximately 1,200 medical officers were serving in the theater at this time. Of these, 35, or 3 percent, had some degree of special training or experience in neuropsychiatry. From 16 to 20 were well or moderately well qualified. Of the 35, 23 were then assigned to each of the 21 hospitals with a bed capacity of 250 or more. Although this spread of neuropsychiatrists worked out well enough for station hospitals, most of the general hospitals were forced to use young, inexperienced and untrained general medical officers.

Since there were no adequate means of reporting neuropsychiatric cases on the then existent "sanitary reports," the consultant in neuropsychiatry reported that 1,056 patients had been recommended by disposition boards for evacuation to the United States. Of these, 451, or 42.7 percent, had neuropsychiatric diagnoses, a rate of 6.75 per 1,000 per year.

In his letter, the consultant in neuropsychiatry requested that official and proper reporting of neuropsychiatric cases be instituted. He also asked that The Surgeon General's published policy on the use of "shock treatment" be revised to permit the use of insulin and electroshock therapy in appropriate hospitals by trained neuropsychiatrists. He strongly believed that the long delay in evacuation and the long ocean voyage to the United States made such treatment necessary.

Early Detection

During 1942 and in early 1943, a soldier might be hospitalized for 2 or 3 months with an organic diagnosis before he was recognized as neurotic and given appropriate treatment. This error was not caused by the hospital psychiatrist, for these patients were on medical and surgical wards and only seen by the psychiatrist upon request. To bring this problem to the attention of the medical officers throughout the command, a detailed study was made of hundreds of patients diagnosed "psychoneurosis" in the general hospitals to ascertain what diagnoses had been made in previous hospitals before transfer to a general hospital. It was found that 85 percent of these patients had been unrecognized as "functional" in the early weeks or months of their hospitalization. Specific findings of this study were circulated to all hospitals

[3] Letter, Lt. Col. S. Alan Challman, MC, Neuropsychiatric Consultant, to The Surgeon General, U.S. Army, 26 Jan. 1943, subject: Treatment of Mental Disorders in Southwest Pacific Area.

in the theater, calling attention to this cause of wasted manpower and to the tendency for the neurotic complaints to become fixed.[4]

Whether or not complaints do become "fixed" as a soldier moves back from the front is a moot point. In the Southwest Pacific Area, "fixing" of complaints seemed less important than the attitude and competence of the psychiatrist treating the patient. Thus, some psychiatrists who were close to the point of "breakdown" found it necessary to evacuate almost all their neurotic-type patients, whereas others, far back in the chain of evacuation, could return 50 percent or more of these patients to duty. Later, it was noted that hospitals operating more or less side by side in combat areas had very different rates of success in returning patients to duty.

Influence of Malaria

The impact of the large percentage of psychiatric patients who were recommended by disposition boards for medical evacuation to the United States was greatly obscured within the medical establishment by the ever larger numbers of malaria patients being admitted to hospitals. All troops in New Guinea were exposed to malaria continuously because of the ever-present *Anopheles* mosquito, and were required to take Atabrine (quinacrine hydrochloride) as a suppressive measure.

For reasons not quite clear at first, Atabrine did not seem to protect from clinical disease, and rates of admission for malaria were, at times, as high as 4,000 per 1,000 per year. Obviously, such attack rates meant a terrific loss of manpower and overcrowding of hospitals. Many medical officers believed that Atabrine would not suppress malaria and that a patient could relapse with chills and fever even while in the hospital taking therapeutic doses of quinine-Atabrine-Plasmochin (pamaquine naphthoate) medication, then in use. However, it gradually became apparent to most medical officers that soldiers were not always taking their medication. Even when the nurses were required to watch the patient put the pill in his mouth and swallow, it was found that an appreciable number wanted so badly to remain in the hospital that they would hold the pill in their cheek until the nurse was gone and then spit it out. Some disposition boards wanted to evacuate these "relapsing" patients to the United States, but this was not permitted by theater policy.

When the taking of medication in hospitals was more strictly supervised, patients invariably recovered from tertian malaria. All unit commanders in New Guinea were required to enforce "Atabrine discipline," a complicated ritual to insure that each soldier regularly swallowed his dose of suppressive quinacrine.

This whole matter was of interest to psychiatrists because the same

[4] Technical Memorandum No. 2, Office of the Surgeon, Southwest Pacific Area, 29 Mar. 1943, subject: Psychiatric Consultations.

basic drive to be relieved of duty and returned to the United States or, at least, transferred to an organization in Australia was at work as in the neurotic complainer. It was an indication of how widespread was the desire in the Army to obtain secondary gain through illness. It provided a reliable forecast of what could be expected if a "soft policy" of hospitalizing and evacuating neurotic-type complainers was followed.

Role of the Neuropsychiatric Consultant

In February 1943, the neuropsychiatric consultant was permitted for the first time to visit Army hospitals in northern Australia and New Guinea. The Buna-Gona campaign was just finished, with the Japanese driven from eastern New Guinea. The experience of handling casualties of all types was still fresh in the minds of the medical officers, and many of the combat casualties were still under treatment. This was the first chance for the neuropsychiatric consultant to meet the psychiatrists in the theater and to appraise their capabilities.

It was evident that a person with a strong personality, broad experience, good training, and administrative ability was required to operate effectively as chief of the neuropsychiatric section in a military hospital. Since few psychiatrists in the Southwest Pacific Area had these qualifications, it was apparent that some major adjustments were required to improve the quality of the then spotty neuropsychiatric work. Maj. (later Lt. Col.) James O. Cromwell, MC, was assigned as commanding officer of a portable surgical hospital in New Guinea although he had excellent personal and professional qualifications in psychiatry. He suggested the establishment of special psychiatric hospitals, patterned on the portable surgical hospitals and capable of being utilized near combat to support troops. The use of the division clearing station for this purpose was inconceivable at this time since neither of the divisions in action had a psychiatrist and since the clearing stations had been literally swamped with malaria cases as well as with wounded.

On 25 February 1943, after his first hospital survey trip, Colonel Challman submitted a report to the Chief Surgeon, USASOS.[5] In addition to general recommendations, the following specific recommendations were made:

1. Recommend the following plan for care and evacuation of psychiatric cases from combat areas.

a. Psychiatric-medical portable hospital operating within walking distance of the front to care for the sorting and treatment of psychiatric cases during periods of active combat and for malaria cases in periods of lull. Recommend that one such unit be organized and placed before the next engagement to gain experience for the future.

b. A building to handle psychotic patients safely should be constructed in the

[5] Letter, Lt. Col. S. Alan Challman, MC, Neuropsychiatric Consultant, SWPA, to Surgeon, USASOS, 5 Mar. 1943, subject: Report of Trip Through Base Sections 2 and 3 and U.S.A. Advance Base.

Moresby area probably at the 105th Medical Regiment. Such a building to be a semi-permanent type but need not provide more than 8 or 10 individual rooms for patients.

c. The psychiatric service for one station hospital in the Moresby area should be built up to a point where adequate evacuation and therapy can be given to questionable neurotic cases passing through that area. At the present time, the 171st Station Hospital is probably best fitted for this work. An adequate activity program and a satisfactory staff would be provided for this work.

d. A well-constructed building for 10 or 12 psychiatric patients should be placed in the Townsville area, preferaby at the evacuation hospital there if such a hospital is approved. Such a unit would receive psychotic patients discharged from aeroplanes there and hold them for removal to a general hospital in the south.

2. Recommend a program be instituted to build up the professional strength in station hospitals generally, and in some general hospitals.

a. A bulletin or circular letter on minimum essentials for psychiatric work in a station hospital is in preparation.

b. Psychiatrists should be shifted from station hospitals where there are two or more to provide hospitals having no psychiatrists.

c. Psychiatrists are in need of technical instruction as to how to build up activity programs and how to secure better information from organizations sending patients to the hospitals. Such instructions are in the process of formulation.

d. A technical manual for psychiatrists and other medical officers to acquaint them with problems met in the diagnoses and treatment of psychiatric cases is needed.

3. Recommend structural improvements as follows:

a. A small building for 8 to 10 psychotic cases in Moresby area.

b. A small building for 10 to 12 psychotic cases in Townsville area.

c. The 4th General Hospital ward for psychotic cases should be improved to eliminate suicidal hazards.

d. If the 42d General Hospital is to remain at Stuartholm, two standard-type psychiatric wards should be completed on the grounds to eliminate the necessity of using Goodna Mental Hospital.

4. Psychiatric staff in general hospitals should be increased to provide one psychiatrist to every 250 beds. At the present time there is enough work for this number of psychiatrists but they are being looked after by others not well qualified to do the work. This would require the requisition of 10 psychiatrists from United States—2 Majors, 5 Captains, 3 Lieutenants. One of the captains should be specially trained in the use of electric shock therapy.

All the listed recommendations were put into effect promptly except that which concerned the establishment of small neuropsychiatric hospitals under canvas to handle patients with minor psychiatric disorders during combat periods. The separation of medical responsibilities into Services of Supply and Ground Forces probably played only a minor role in preventing this development. Rather, it was general pessimism about psychiatric patients' suitability for return to combat duty.

In March 1943, the 171st Station Hospital, in Port Moresby, was designated as a center for the treatment of minor psychiatric (nonpsychotic) conditions in Base D (fig. 50). To prevent unnecessary evacuation to Australia, the base surgeon ordered that all patients with suspected psychiatric disorders, who could not be returned to duty from the hospital to which they had been admitted, would be transferred to the new neuro-

FIGURE 50.—Neuropsychiatrist's office and examining room, 171st Station Hospital, Port Moresby, New Guinea, August 1943.

psychiatric section of the 171st Station Hospital for treatment and disposition. Major Cromwell was assigned to the 171st Station Hospital as chief of the neuropsychiatric section and was ably assisted by Captain Webb and three psychiatrists. This group developed a treatment program of individual and group psychotherapy and occupational and recreational therapy, and the patients were kept in fatigue clothing rather than pajamas as worn by medical and surgical patients.

The result of this program was that 75 percent of the minor psychiatric patients were returned to duty in New Guinea. Thus, the flow of minor psychiatric patients to Australia was greatly reduced. This successful innovation provided the factual basis for recommending to the chief surgeon that a hospital in each future base be designated for and devoted exclusively to the treatment and disposition of minor psychiatric cases.

On 23 April 1943, Colonel Challman prepared a comprehensive report for the Chief Surgeon, USASOS, on the current status of neuropsychiatry in Australia and New Guinea,[6] portions of which were as follows:

1. It is physically impossible for 2 percent of the staff (one psychiatrist among 50 medical officers) to look after 20 percent of the cases in the hospital—especially so since N–P [neuropsychiatric] cases are more time consuming on the average in their workup and treatment than other medical and surgical cases.

[6] Letter, Lt. Col. S. Alan Challman, MC, Neuropsychiatric Consultant, SWPA, to Surgeon, USASOS, SWPA, 23 Apr. 1943, subject: Report on Status of Neuropsychiatric Service in USASOS, SWPA.

2. The system of assigning younger unspecialized medical officers to supplement the work of the psychiatrist can be helpful if:

a. The medical officer assigned has the desire and the capacity of N–P work.

b. The psychiatrist has the time to supervise and train the younger man.

c. The assignment can be made for a long period so that a younger man once trained can continue to give service without interruption and the consequent necessity to train another man.

3. Carrying 30 percent or more of the psychiatric patients on medical and surgical wards * * * is an entirely defensible and necessary device due to the overall shortage of qualified psychiatrists, *but* it should not be utilized without the provision of an adequate consultation service * * *.

4. The nurses working in the neuropsychiatric section of general hospitals are for the most part without special training for the work. It is essential to a psychiatric service that nurses be qualified to handle the special requirements of the assignment.

5. The need for specially qualified and assigned personnel to take charge of the occupational therapy in the psychiatric section of each general hospital should be clearly recognized.

In his report, Colonel Challman discussed deficiencies in the construction of psychiatric facilities, especially closed wards; also, he listed equipment for hydrotherapy, electroshock therapy, and occupational therapy which were essential in certain installations, in addition to certain special drugs and psychological test material.

The neuropsychiatric consultant then presented his recommendations for a general program:

a. General hospitals to be staffed with three psychiatrists of varying degrees of qualification in the specialty.

b. A head nurse and principal wardmaster who have had special training in psychiatric techniques.

c. There should be in each general hospital an enlisted man of the grade of Technical Sergeant, who is qualified in personality, by civilian experience, and special training for the position of occupational therapist.

d. General hospitals should function as training centers and pools for psychiatrists * * * for head nurses, principal wardmasters, and occupational therapists.

e. Station hospitals to be staffed with one regularly assigned and specially trained psychiatrist at all times and with an expansion staff during periods of excessive psychiatric activity. There should also be a specially trained head nurse, a specially trained wardmaster, and a specially trained occupational therapist in each station hospital.

f. For the present since, because of no psychiatric service in the forward areas, a large number of N–P cases were evacuated to the rear who could with a few days' treatment have returned to duty, it is suggested that portable psychiatric hospitals be activated. Such units should have the same T/O [table of organization] as other portable units except that 20 enlisted men would be sufficient. The 4 medical officers should be made up of 2 psychiatrists and 2 internists. The T/E [table of equipment] should include tools and recreational equipment in place of the operating room setup. This unit should be placed within walking distance of the front (its patients are always walking wounded), and if possible within walking distances of the airstrip or other evacuation point for the area. During active combat, N–P cases would be admitted exclusively, but during long quiet periods patients with f.u.o. [fever of undetermined origin] would be admitted. [It was believed that 7 days of psychiatric treatment could be given at this second echelon.]

His specific recommendations were:

1. 20 neuropsychiatrists be requisitioned from the United States.
2. A letter be sent to The Surgeon General requesting that in the future general hospitals be provided with three neuropsychiatrists, and 250-bed station hospitals * * * with one neuropsychiatrist.
3. The adoption of the policy of rotating station hospital neuropsychiatrists through general hospitals in this theater on 4 weeks' temporary duty for training and evaluation.
4. Training schools be instituted for psychiatric personnel as follows: Psychiatric nursing, 118th General Hospital; psychiatric wardmasters, 118th General Hospital; occupational therapists, 105th General Hospital.

Later, in response to an official request from The Surgeon General for specific information on various matters of neuropsychiatric interest, including statistics, personnel, organization, supplies, and morale, Colonel Challman prepared such a report.[7]

In this report, dated 1 June 1943, Colonel Challman noted: "* * * incidence of hospital admissions for neuropsychiatric disorders to be 42 per thousand troop per annum * * * 4.0 percent of the hospital admissions are for neuropsychiatric conditions." He commented that these figures represented not more than 50 percent of the actual incidence of mental illness, for the data, which were compiled from the statistical health reports, were based on admission diagnoses and therefore reflected chiefly the obvious psychiatric conditions.

In his report, Colonel Challman also furnished the following AWOL (absent without leave) and courts-martial data:

A.W.O.L. figures are not very complete since they represent only the arrest by the USASOS military police. Extensive consolidations have been made only since November 1942. At present the following figures are available:

November:	144 offenses,	1.6 per 1,000 troops
December:	148 offenses,	1.4 per 1,000 troops
January:	255 offenses,	2.6 per 1,000 troops
February:	871 offenses,	7.8 per 1,000 troops
March:	883 offenses,	7.1 per 1,000 troops

Court-martial figures are available only for our SOS units. They show:

November:	490 courts-martial, of which 127 were for AWOL
December:	452 courts-martial, of which 121 were for AWOL
January:	627 courts-martial, of which 179 were for AWOL
February:	557 courts-martial, of which 135 were for AWOL
March:	340 courts-martial, of which 152 were for AWOL

Operation of Special Neuropsychiatric Hospitals

The policy of designating one station hospital in each base exclusively for treatment and disposition of patients showing minor psychiatric disorders and another station hospital in each base to provide security accom-

[7] Report, Lt. Col. S. Alan Challman, MC, Neuropsychiatric Consultant, SWPA, to Surgeon, USASOS, SWPA, 1 June 1943.

modations for the treatment of psychotic patients was approved by the chief surgeon in August 1943. This plan had the following advantages:

1. It permitted the grouping of psychiatrists so that the less skilled could work effectively under the supervision of the more skilled.

2. It provided a place for training of general physicians, nurses, corpsmen, and occupational and recreational therapists in psychiatric techniques.

3. It bypassed the active opposition or passive resistance found in so many hospital commanders to providing the necessary program and equipment for proper treatment of minor psychiatric patients. Such things as individual wall tents for psychiatric interviews, fatigue clothing instead of pajamas, occupational and recreational equipment, and freedom to expand bed capacity as necessary were ordinarily very difficult to arrange for in hospitals of general medical purposes.

4. It insured the carrying out of theater policy with respect to the utilization of manpower.

5. It reduced the length of hospital treatment for minor psychiatric disorders.

6. It provided for staff teamwork between professional and nonprofessional personnel.

7. It avoided the pessimistic and disparaging attitude of most hospital personnel toward neurotic complainers, substituting an atmosphere of optimism and sympathetic respect.

8. It led to the encouragement and sharing of experience in group psychotherapy which was a new technique for all theater psychiatrists.

9. It furnished competent consultation service to all hospitals in the base and made it unnecessary for them to establish their own treatment program for minor psychiatric cases.

10. It made possible the acquisition of nonstandard hospital items for use in occupational, recreational, and work therapy.

11. It led to the assignment of purely psychiatric duties to psychiatrists, whereas in many hospitals they had been assigned to such additional duties as executive officer, registrar, and censor.

12. It provided a place for the immediate assignment of psychiatric nurses, enlisted men with training in psychological testing, and Red Cross workers with psychiatric social work training, who were currently assigned to work which did not utilize their special training.

In March 1943, the 171st Station Hospital began to operate as the center for treatment of patients with minor psychiatric disorders, in the Advance Base (Moresby) which later became Base D. In August 1943, the 141st and 148th Station Hospitals, both 50-bed hospitals newly arrived in the theater, were designated to treat minor psychiatric disorders in Bases A and B which were then being built in New Guinea. This gave adequate coverage for each of the three bases which were in existence

outside Australia at that time. Neuropsychiatric personnel were assigned and construction completed during the last quarter of 1943. These specialized hospitals not only cared for all minor psychiatric patients in the base in which they were located but also furnished psychiatric consultation service to other hospitals in the area. Thus, it was possible to transfer all psychiatric personnel to the specialized hospitals.

Base surgeons issued directives to all hospitals in their commands that minor psychiatric patients were not to be evacuated to Australia except on the recommendation of the psychiatric consultant from the specialized hospital. The psychiatric consultation service was established in Bases A, B, and D before 10 December 1943. A staff member of the neuropsychiatric hospital was assigned as consultant to make regular rounds and emergency visits to all hospitals in the base. These consultants were selected on the basis of their competence in neurology and psychiatry and their understanding and willingness to comply with the theater policy regarding conservation of manpower. Patients were no longer evacuated under a neuropsychiatric diagnosis for administrative reasons because they were too old, maladjusted in their assignment, of no use to the organization, "misfits," or "Section VIII" cases. Patients with physical complaints which were exaggerated as a result of being "fed up" with the service, who desired to return to the United States, were now treated to develop insight into the cause of their symptoms and returned to duty.

These efforts at conservation of manpower were being made in 1943 in the Southwest Pacific Area because of the personnel shortage and because the excessive cost to the war effort and to the individual's self-esteem were foreseen. At this same time in the United States and perhaps in certain other overseas theaters, it was still believed that a "clean" army could be brought about by "meticulously weeding out the actual or potential neuropsychiatric casualties." [8]

Station hospitals were also designated in each base for the care of psychotic patients. These hospitals constructed security-type accommodations which had been developed by the USASOS engineer to conform to requirements laid down by the theater neuropsychiatric consultant. Considerable ingenuity was exercised in utilizing building materials available to construct the security wards. The 116th Station Hospital in Base D, the 108th Station Hospital in Base B, and the 124th Station Hospital in Base A, each had one or more prefabricated security wards, and a qualified psychiatrist was assigned. It was his responsibility to select and train nurses and enlisted corpsmen in the proper care of psychotic patients.

On 29 January 1944, the neuropsychiatric consultant proposed recommendations to the chief surgeon, relative to the status of psychiatric treatment toward the end of 1943 and to some of the problems which were arising in forward bases under development or in the planning stage:

[8] See footnote 2, p. 527.

1. Station hospitals specially staffed, equipped, located, and constructed for the treatment of psychoneurotic and maladjusted soldiers are required in every base outside Australia. They should be put in early, since the prevention of evacuation of these cases to the rear is of greater importance from the standpoint of the patient's recovery than it is in ordinary medical or surgical cases. Five percent of the beds in each base should be in special neuropsychiatric hospitals. General hospitals are not suited for the treatment of this type of case and have their hands full with diagnosis and disposition of nonsalvageable neuropsychiatric patients.

2. One prefabricated security ward should be ordered by the Chief Surgeon to be shipped with the first prefabricated hospital sent to each new base. Since security wards are not shipped unless specially ordered by this office, and since early plans for new bases are generally kept secret, the operations section should be made responsible for this matter. We are evacuating over 100 psychotic patients a month from New Guinea, and provision must be made early for their reception and care. The most disturbed types come out of combat, so structural provisions must always be made well forward in the evacuation chain. Care of such patients under canvas is entirely unsatisfactory. Improvised cages made of Australian airplane stripping are a disgrace to our Medical Service when they are found in hospitals with elaborate operating rooms, clinic, and recreation buildings.

3. A small station hospital from 50 to 250 beds should be designated immediately for construction in Base F. A large number of recognized and unrecognized neuropsychiatric cases are being unnecessarily evacuated from the Advance Section at present. If a prefabricated security ward has not been shipped to Base F as yet, it should go with the next hospital ordered to that base.

4. The following matters are being looked after by the Neuropsychiatric Consultant while he is at headquarters but need the backing and approval of the Chief Surgeon:

a. Arranging for the assignment of properly qualified American Red Cross workers to all psychiatric hospitals.

b. Arranging for the assignment of chaplains with attributes needed for work in psychiatric hospitals.

c. Requisitioning of occupational therapy workers from the United States for work in psychiatric hospitals.

d. Arranging for the assignment of nurses suited to work with maladjusted patients.

e. Expediting shipment of items of supply for occupational therapy program which are not available in intermediate section depots.

f. Arranging for an increase in vehicles necessary for operation of a psychiatric hospital.

g. Writing technical memoranda on differential diagnosis of psychoneurosis, simple adult maladjustment, constitutional psychopathic state, habit disturbance, and concussion, and on transportation of psychotic patients.

The problem of providing security accommodations for psychotic patients (fig. 51) was difficult from start to finish. The rate for psychosis in the Southwest Pacific reached a level of 6 per 1,000 for 1944, the highest for any theater. Troop transports, the major means of returning medical evacuees to the United States, were unable to carry many psychotics, because few security accommodations were available. Thus, an ever-increasing backlog of psychotic patients built up in the theater until late 1944, when air evacuation of psychoses was begun. Ward tents, which provided satisfactory accommodations for mentally normal patients, were of no practical use for disturbed psychotics.

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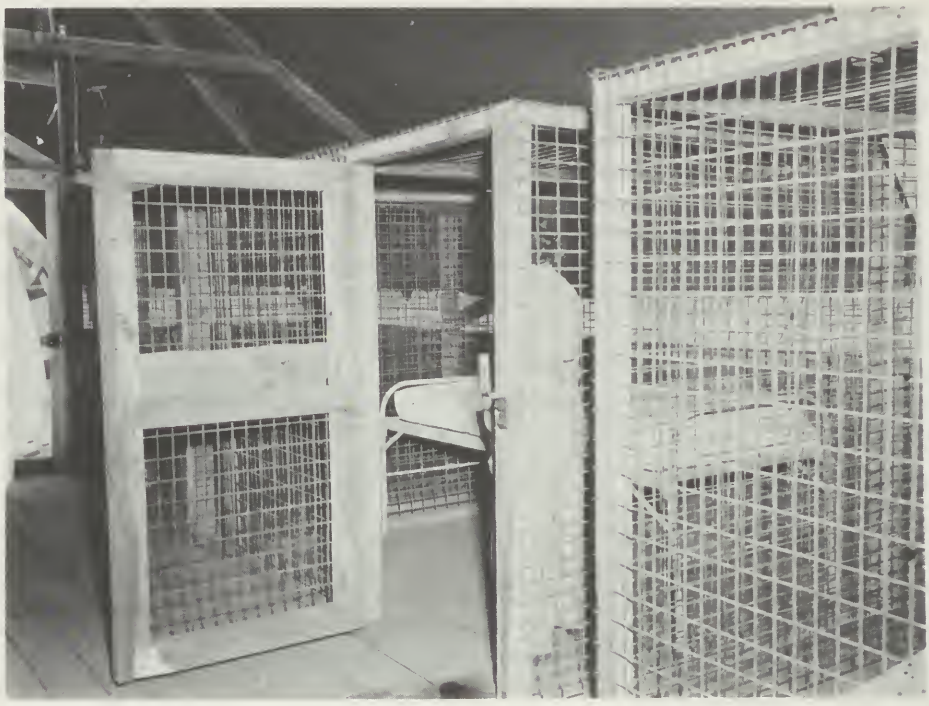

FIGURE 51.—Restraint rooms, neuropsychiatric ward, 251st Station Hospital, Cape Gloucester, New Britain, September 1944.

In 1942, the Chief Surgeon, SWPA, developed a plan with the Engineer Section for prefabricated buildings of standard types for various hospital purposes. The lumber, metal roofing, concrete, and other building materials were shipped up to New Guinea from Australia in accordance with specifications for the type and size of hospital and were then erected on the site by a combination of engineering and hospital troops.

The neuropsychiatric consultant gave detailed specifications for the construction of security wards to the Engineer Section before plans were drawn up and approved. When this was accomplished, it appeared that the problem was solved, but it was only the beginning of an endless struggle to have security wards erected before the base was abandoned. Obviously, construction of security wards took longer than did construction of ordinary wards, headquarters buildings, and recreational buildings.

The base surgeons and hospital commanders who were anxious to show a rapid increase in the number of beds available in the base delayed building the security wards until most everything else was completed. It took a year to discover that, simply by explanation, base surgeons were not convinced of the early need for security wards. Everywhere, surgical operating rooms were constructed early. The chief surgeon was prevailed upon to issue a

directive which established the construction priority for a security ward to be just below that for an operating room. Even this met with difficulties due to shortages of essential materials for security wards. Tongue-and-groove lumber, locks, doors, window screens, and the like often mysteriously disappeared after they had been landed at a new base.

The two 50-bed station hospitals were so successful that two additional station hospitals of 250 beds each—the 18th in Milne Bay (Base A) and the 126th in Finschhafen (Base F)—were designated for the exclusive treatment of minor psychiatric cases in 1944. These special hospitals were able to reduce greatly the loss of manpower in the theater by shortening the hospital stay of "minor" psychiatric patients to an average of 3 weeks and by successfully returning between 75 and 85 percent of these patients to duty. Later, followup studies showed that those soldiers who were returned to duty did not have an appreciably high hospitalization rate and continued to serve effectively in the theater.

The development of special neuropsychiatric hospitals seemed, from some points of view, to be a backward step. Theoretically, it would be better to keep a neuropsychiatric section or service in each hospital just as planned by the War Department. Actually, however, because available psychiatrists were not sufficiently competent, professionally and administratively, to develop adequate neuropsychiatric services in each hospital and because many commanding officers were intransigent to making proper provisions for psychiatric cases, it was preferable to depart from theory and to establish specially designated neuropsychiatric treatment hospitals.

Personnel

Because the system of professional classification of medical officers was not available until early in 1945, the neuropsychiatric consultant constructed his own proficiency scale in 1943 to improve communication with the Surgeon General's Office and others about personnel needs. The classification designation, A through D, related to the variety of assignments, as follows:

A.—Capable of supervising and developing less skilled psychiatrists. Well trained.

B.—Capable of working effectively without supervision. Reasonably adequate training.

C.—Capable of working effectively only with psychiatric supervision. Slight training.

D.—No training. Expressed interest in psychiatry.

In 1943, the chief surgeon instructed all base surgeons and hospital commanders that psychiatrists were not to be assigned to work in other spheres. This helped considerably in the efficient utilization of psychiatrists but was somewhat difficult to implement. Violations occurred largely be-

cause medical personnel records did not then include specialty classifications, as was later ordered by the War Department. Seldom was it difficult to transfer a psychiatrist who was assigned to nonpsychiatric duties unless he was under command of the Ground or Air Forces. Since psychiatrists were in critically short supply, bulletins were sent to all hospitals offering psychiatric training to interested medical officers. This helped locate some capable men; however, most applications came from officers motivated by a desire for transfer from an unhappy assignment rather than by a sincere interest in psychiatry.

Another problem concerned the difficulty in obtaining promotions for neuropsychiatrists, primarily because tables of organizations for hospitals did not provide high rank for psychiatrists. The chief of the neuropsychiatric section in a 1,000-bed general hospital carried the rank of major and in station hospitals of 500 beds or less, the rank of captain. Thus, there were few psychiatric positions, in the Southwest Pacific Area, for the rank of major and none of higher rank except for the theater consultant in neuropsychiatry. One advantage in establishing the two 250-bed station hospitals as special neuropsychiatric hospitals was that their manning tables provided positions for two lieutenant colonels and four majors. The two general hospitals finally designated for neuropsychiatry, in early 1945, offered positions for two full colonels, for several lieutenant colonels, and for a large number of majors. These promotions, however, were never implemented because an officer had to serve effectively for 6 months in a position calling for a higher grade before he could be recommended for promotion; the war ended before that could be accomplished.

During 1943, the number of support (SOS) troops increased considerably. Combat divisions, however, increased only from two to four during the year, for U.S. troops were not heavily involved with the enemy after the Buna-Gona operation ended in January 1943. The increase in medical personnel and installations was as follows:

Personnel or installation	*31 December 1942*	*31 December 1943*
Troop strength, SWPA	107,696	307,141
Medical officers	1,385	3,205
Psychiatrists	35	78
Nurses	1,033	2,262
Enlisted men, medical	9,376	22,765
Hospitals:		
General	4	6
Station	15	49
Evacuation	3	5
Field	2	4
Surgical	2	2

The actual number of psychiatrists in the Southwest Pacific Area by the end of 1943 is unknown. The theater had requested 20 psychiatrists to be shipped as casuals from the United States. In September 1943, eight

psychiatrists with excellent qualifications and reasonably well along in their specialty training arrived in the theater and were assigned to hospitals. By the middle of 1943, it was recognized that the "shortage of psychiatrists," referred to by responsible medical officers in explaining the weak neuropsychiatric services in their own organizations, was more of a rationalization than a valid reason for the deficiencies noted. The greatest need was not to obtain more psychiatrists but to create the conditions under which available psychiatrists could work effectively. Such conditions did not exist in the majority of military organizations—medical or other. The prevalence of a deep-seated skepticism about the potential value of a psychiatric patient, about the efficacy of psychiatric treatment, and about the practicality of psychiatrists' judgment led to a multiplicity of obstacles which sooner or later discouraged all but the most dedicated and tenacious psychiatrists and caused them to settle for some relatively comfortable niche in the organization where they would not continually have to be on the aggressive.

One important step toward creating more favorable conditions was the assignment, in each base, of hospitals specifically designated for neuropsychiatric service and commanded by a psychiatrist. This development did not eliminate all the problems which handicapped neuropsychiatry, for many obstacles still remained which could not be solved within the special hospital organization. Some of these were:

1. Prevention of psychiatric casualties in combat and service units.
2. Proper discrimination by general medical officers at sick call and in dispensaries of those who required hospitalization from those who did not.
3. Early detection of the psychiatric nature of the complaints by the medical and surgical staff in general-type hospitals and prompt request for psychiatric consultation.
4. Procurement of nonstandard equipment for neuropsychiatric hospitals, such as a jeep for the consultant, tools and materials for occupational therapy and recreation, and materials for psychological testing.
5. Official instructions, such as theater regulations and technical memorandums, concerning appropriate diagnosis and disposition of the various types of minor psychiatric cases.
6. Planning and arranging suitable priorities in construction of sufficient security accommodations in each base.
7. Arrangements for the evacuation of psychotics to the United States and for the training of medical personnel in ship platoons to care for such patients.
8. Improvement in handling psychiatric patients discharged to duty so as to avoid their spending weeks or months in a replacement depot, awaiting reclassification or transportation.
9. Establishment of a training center for management of cases of

psychopathic personality or simple adult maladjustment who were able to gain admittance repeatedly to hospitals as an escape from duty.

Evacuation to the United States

During 1943, the large number of military personnel evacuated to the United States for neuropsychiatric reasons surprised those who had believed that medical screening at induction and during basic training would eliminate most persons with potential neuropsychiatric disorders. The Mediterranean and European theaters had first call on men, supplies, and transportation, and a shortage of everything existed in the Southwest Pacific Area. It was, therefore, very disappointing to see so many soldiers being sent back to the United States with a diagnosis of psychoneurosis. The only means of controlling this large loss of manpower was through the neuropsychiatric consultant who influenced psychiatrists and general hospital disposition board members to change their pessimistic attitudes on the potential usefulness of patients with neurotic-type complaints. The return for reconsideration of a high proportion of the disposition board proceedings (which had to be approved in the Chief Surgeon's Office), that had recommended evacuation for neurotic-type complainers, also acted as a brake upon a lax policy of evacuation.

Although comparisons are fraught with difficulties, the following tabulation of medical evacuations from the Southwest Pacific Area and the South Pacific Area during 1943 would seem to indicate that there was some success in the Southwest Pacific Area, even at this early date, in staunching the flow of personnel forward "back home":

Evacuations	*Southwest Pacific Area*	*South Pacific Area*
Average strength in theater during year 1943	200,000	150,000
Total medical evacuation to the United States	8,294	22,265
Percent of average strength evacuated	4	15
NP (neuropsychiatric) cases evacuated to the United States	3,439	6,335
Percent of average strength evacuated for NP reasons	1.7	4.2
Percent of evacuations for NP reasons	41.5	28.5
Malaria cases evacuated to the United States	0	3,334

NEUROPSYCHIATRY, 1944

By January 1944, most of the elements in the SWPA military establishment had learned a great deal about how to operate more efficiently. MacArthur's strategy of leapfrogging Japanese strong points whenever possible materially reduced combat casualties. Personnel in all branches of the Army had, in considerable measure, either learned how to handle their assign-

ments adequately or had been transferred to posts of lesser importance. Teamwork had improved considerably as people came to know each other better and to learn on whom they could rely.

Brig. Gen. Guy B. Denit, MC, was installed as Chief Surgeon, USASOS, SWPA, in January 1944. He proved to be a leader with very superior qualities in administration. He had a broad grasp of the medical problems; courage and good judgment in initiating changes and pressing for the fulfillment of medical needs; and ability to evoke and display loyalty within his team. His deputy, Col. Raymond O. Dart, MC, was also a man of outstanding ability. The Chief of Professional Services, Col. Maurice C. Pincoffs, MC, of the University of Maryland Medical School, was a man of distinguished ability, comprehension, and fairness.

In a certain restricted sense, neuropsychiatric service in the Southwest Pacific Area began with the opening of the 148th and 141st Station Hospitals (figs. 52 through 56), on 1 and 19 January 1944, respectively. They served Bases A and B as the 171st Station Hospital served Base D. Thus, each of the three bases then operating in New Guinea had competent coverage of minor neuropsychiatric disorders, which comprised four out of five neuropsychiatric hospital admissions. General hospitals were then being established in New Guinea bases, which made it possible to improve care given psychoses and eliminated the necessity of transfer to Australia before evacuation to the United States.

A plan of treatment which operated in 1944 for the care of neuropsychiatric patients was as follows:

At the battalion aid post.—Reassurance and sedation; 1- to 24-hour stay; return to duty.

At clearing station.—Treatment under supervision of division neuropsychiatrist; a 24- to 48-hour stay, if possible; return to duty.

At evacuation hospital.—Treatment under neuropsychiatrist in charge of the neuropsychiatric section, consisting of sedation, reassurance, sleep, and hot food; a 1- to 4-day stay; return to duty.

At station hospital.—Neuropsychiatric consultant service furnished by special station hospital (NP); no treatment except when operating at isolated station; return to duty.

At special station hospital.—Staffed by neuropsychiatrists, neuropsychiatric nurses, neuropsychiatric social workers, trained ward attendants, and recreation workers. Treatment, consisting of an activity program of work and recreation, including individual and group psychotherapy; a 10- to 60-day stay; special treatment for psychoses and missed psychoses; 85 percent of minor neuropsychiatric and missed minor neuropsychiatric patients returned to duty.

At general hospital.—Neuropsychiatric staff; security wards; treatment of psychotics; disposition board; a 10-day stay; return to duty; evacuation to the United States.

FIGURE 52.—Clearing jungle for the special neuropsychiatric hospital, the 141st Station Hospital, Milne Bay, New Guinea, December 1943.

At training center (rehabilitation section).—Staffed by a line command section chief and neuropsychiatrist; reclassification; reorientation, special training schools; appropriate reassignment; a 30- to 90-day stay; return to duty; reassignment; discharge ("Section VIII"); evacuation to the United States.

A number of problems connected with the care of psychiatric patients still remained. These problems detailed in a report of the neuropsychiatric

FIGURE 53.—141st Station Hospital, special neuropsychiatric hospital, Milne Bay, New Guinea.

consultant, submitted in April 1944, after a 6-week trip around New Guinea bases,[9] were: (1) Obtaining proper neuropsychiatric facilities and supervising such new construction; (2) proper distribution, location, and neuropsychiatric staffing of special neuropsychiatric hospitals, general, and station hospitals; (3) establishment of uniform diagnostic, treatment, and evacuation procedures; (4) dissemination of psychiatric information to psychiatrists, general medical officers, and line officers; and (5) discouragement of the use of medical channels for disposing of ineffectuals not entitled to such disposition. It seemed, however, that the problems differed only because command cooperation differed at local bases.

Early Detection

Efforts were made continuously to educate the general medical officer in the early recognition of psychiatric patients with presenting complaints of a "physical" nature. The expert consultants furnished to all hospitals in New Guinea and parts of Australia did much of the educational work. However, many officers on medical or surgical services never requested psy-

[9] Report, Lt. Col. S. Alan Challman, MC, Neuropsychiatric Consultant, SWPA, to Chief Surgeon, USASOS, SWPA, 20 Apr. 1944, subject: Report of Field Work by Neuropsychiatric Consultant.

FIGURE 54.—Messhall for patients, 141st Station Hospital, Milne Bay, New Guinea.

FIGURE 55.—Nurses' quarters, 141st Station Hospital, Milne Bay, New Guinea, December 1943.

FIGURE 56.—Neuropsychiatric staff conference held at the 141st Station Hospital, Milne Bay, New Guinea, December 1943.

chiatric consultation except in an obvious case; many had difficulty in including a psychiatric disorder as a possibility in differential diagnosis. For such physicians, as well as for those who desired some means of measuring the "functional" component, an instrument labeled the "Medical History Check List" (appendix H) was developed.

This list contained 74 questions, 12 of which were designed to obscure the fact that it was a psychiatric questionnaire. The 62 questions which were pertinent to psychiatry had been compiled by Colonel Challman, in 1941, when he was psychiatric consultant at Lovell General Hospital, in Massachusetts. In 1943, Capt. (later Maj.) Henry A. Davidson, MC, stand-

ardized the series, using 434 minor psychiatric patients and 221 "control" troops on duty status. Each question was checked for its differentiating power. Unless a question was answered "yes" more than twice as frequently by "NP" patients as by normals, it was eliminated. The average score for neurotics was found to be 29, while the average score for simple adult maladjustment cases was 23, and the average for normals, 12.

The checklist, termed the "Adjustment Index," was distributed to new patients by the nurse, scored by her, and put in the medical record for the medical officer's information. Since 75 percent of minor psychiatric patients score 20 or more, whereas only 15 percent of normals exceed this score, it was advised that psychiatric consultation be considered if the score was between 15 and 20, since 50 percent of these would prove to be "minor" psychiatric cases.

The neuropsychiatric missionary in a medical organization is confronted by something more resistant than ignorance among general medical officers. As proof, this easily administered aid to diagnosis was never widely used by medical officers in the theater. Perhaps more could have been done if it had been "sold" diligently. As it was, there was only a small "ready market" for the adjustment index. Nevertheless, it was impossible for a medical officer to serve for long in the Army without learning a great deal about the frequency of neuropsychiatric disability. In early 1943, it was not unusual for the neuropsychiatric consultant to be told, at a hospital with several hundred patients, that there were no neuropsychiatric cases among them—which only meant that these patients were not being recognized. By 1944, such statements were no longer heard since awareness of neuropsychiatric conditions had greatly improved.

Minor Psychiatric Disorders

Although initially the failure to recognize patients who presented somatic complaints as possibly psychiatric was widespread, the time came when a large proportion of such patients were properly identified but then almost invariably labeled "psychoneurosis." This designation was unsatisfactory because it was used broadly and included almost any type of functional complaint short of psychosis. Thus, the term became almost meaningless; also, "goldbricking" was associated with "psychoneurosis," an injustice to many sufferers.

While it was agreed that no standard criteria existed for "psychoneurosis," the grave consequences of this diagnosis, relative to suitability for service, medical disposition, and, later, compensation rights made it desirable to attempt a clearer definition, which would exclude the large number of cases who were "normal" under ordinary circumstances but who had subjective complaints when under heavy or prolonged psychological stress. There was no medical term in common usage to denote such reac-

tions. Army regulations, although they contained no suitable diagnosis, did provide a loophole in permitting the use of any term "in good medical standing" where necessary to supplement the official diagnostic list. The American Medical Association's publication "Standard Nomenclature of Disease" contained no such term as "situational reaction," but did list "simple adult maladjustment." This designation seemed appropriate for use under the circumstances.

A technical memorandum which was prepared by the neuropsychiatric consultant and approved by the chief surgeon endeavored to clarify the differential diagnosis of minor psychiatric disorders.[10] This memorandum, released on 29 February 1944, was substantially followed by almost all the psychiatrists in the theater. The following eight minor psychiatric diagnoses were recognized: Alcoholism, constitutional psychopathic state, drug addiction, habit disturbance, mental deficiency, psychoneurosis, posttraumatic state, and simple adult maladjustment. The memorandum also attempted to resolve troublesome areas in the diagnoses of constitutional psychopathic state, concussion, posttraumatic state, and habit disturbance. Further, it set forth theater policy regarding disposition of the various minor psychiatric disorders. This clarification of diagnosis and disposition of minor psychiatric disorders reduced considerably the hospital stay of these patients and avoided the many unnecessary transfers from forward to general hospitals which had occurred previously.

The Surgeon General's Office and the War Department did not officially recognize or provide for alternatives to the diagnosis "psychoneurosis" in neurotic-type complainers until March 1945, when such terms as "inadaptability," "anxiety state," and "conversion hysteria" were authorized.[11]

Special Neuropsychiatric Hospitals

The special hospitals for the treatment of "minor" psychiatric disorders were similar in patterns of operation, though they differed in many respects, owing to a variety of circumstances. Duty personnel were made up of medical officers (psychiatrists and one internist), dental officers, administrative officers, nurses, a chaplain, a dietitian, enlisted men, and attached Red Cross social workers. The number of each category varied according to the size of the hospital, the number of patients being treated, the number of trainees attached, and the number of psychiatrists and psychiatric nurses available for temporary duty while their units were staging, moving, or otherwise deficient in psychiatric patients. The smallest hospitals (50 beds) had five medical officers including one internist, one MAC (Medical Administrative Corps) officer, four nurses, 41 enlisted men, and two Red Cross workers. The largest hospitals (250 beds) had 10

[10] Technical Memorandum No. 6, Headquarters, USASOS, Office of the Chief Surgeon, SWPA, 29 Feb. 1944, subject: Minor Psychiatric Disorders.

[11] War Department Circular No. 81, 13 Mar. 1945.

medical and two dental officers, 14 nurses, eight MAC officers, one chaplain, one dietitian, and 140 men.

The most striking differences between special neuropsychiatric hospitals and other hospitals were found in the spirit of teamwork and the spirit of optimism about recoverability that existed in the special hospitals. Here was a freedom from frustration and an infectious enthusiasm that contrasted sharply with the pessimistic attitudes in many psychiatric sections of general or station hospitals.

The treatment plan in the special neuropsychiatric hospitals included:

1. An immediate orientation for each new patient in how this hospital differed from others in the retention of many features of ordinary military life such as discipline, scheduled activities throughout the day instead of "bunk fatigue," wearing of work clothing instead of pajamas, and so forth.

2. An initial physical examination by the internist and a complete psychiatric workup commenced on the first day of admission. Also, whenever a psychologist was available, clinical psychological testing was accomplished, as needed.

3. Some activities were of a general type in which all patients participated, and some were chosen because of the individual need or interest of the patient. Activities varied from light to heavy in physical stamina required and from purely recreational with high interest value to plain labor of little interest. Many activities were of value to the hospital community—such as building furniture, leveling and laying out baseball diamonds, volleyball courts, and horseshoe courts, and gardening (fig. 57). Other activities were largely educational and included Armed Forces Institute Correspondence Courses, current events, and morale-building movies. A great variety of equipment and material was gradually acquired for activity programs, from carpentry, mechanical, or gardening handtools, to athletic equipment, sawmills, broken-down trucks to repair, and even a small Caterpillar tractor for heavy jobs.

4. Individual psychotherapy was in use to the limit of the patient's needs and the psychiatrists' available time. Hypnosis and sodium amobarbital interviews were employed where indicated. Nurses participated in psychotherapy and, in one hospital, helped patients in thinking through a self-study outline ingeniously contrived to aid in developing insight.

5. Group therapy was under development and utilized in all special hospitals. While it was largely experimental in that there were no skilled and experienced group therapists in the theater, much was learned and its effectiveness was gradually improved.

6. Drug therapy was also used where indicated. Sedatives were the main reliance, but subshock insulin and ergotamine tartrate were also given a trial.

In addition to treating patients, the special neuropsychiatric hospitals conducted training, as follows:

FIGURE 57.—Convalescent patients gardening on the hospital grounds as a part of the rehabilitation program, 128th Station Hospital, Base E, Lae, New Guinea, 1 November 1944.

1. Psychiatrists newly arrived in the theater were attached for temporary duty and indoctrinated in methods and policies regarding diagnosis, treatment, and disposition. The new personnel were also evaluated during this period of training.

2. Medical officers with an interest in psychiatry were given on-the-job training and participated in clinical conferences, staff meetings, journal club, and special lectures.

3. Nurses were trained on the job under the supervision of competent psychiatric nurses.

4. Enlisted men were trained by the staff in observing and recording patients' performance, in answering patients' questions constructively, and in a therapeutic supervision of the activity and work program. Many became skilled in occupational therapy.

5. The psychiatric staff grew immeasurably in professional proficiency, owing to the mutual support and exchange of experiences.

The following special hospitals for treatment of minor psychiatric disorders operated during 1944 in the Southwest Pacific Area:

171st Station Hospital, 250-bed, Base D, Port Moresby. (Psychiatric service comprised about half of this hospital's function.)

141st Station Hospital, 50-bed, Base A, Milne Bay. (Incorporated into 18th Station Hospital, in March 1944.)

148th Station Hospital, 50-bed, Base B.

18th Station Hospital, 250-bed, Base A, Milne Bay.

126th Station Hospital, 250-bed, Base F, Finschhafen.

125th Station Hospital, 250-bed, Leyte.

Neuropsychiatric consultation service offered by these hospitals to other hospitals in the same base led to the majority of admissions. One hospital consultant reported the following percentages of diagnoses in 1,059 consecutive patients:

Diagnosis	*Percent*
No psychiatric diagnoses	12
Psychoses	7
Mental deficiency	1
Organic neurological diagnoses	55
Constitutional psychopathic state	6
Psychoneuroses	55
Simple adult maladjustment	16

The 141st and 18th Station Hospitals discharged 1,735 cases with minor psychiatric diagnoses, between 4 December 1943 and 4 October 1944, distributed as follows: [12]

Diagnosis	*Number*	*Percent*
Alcoholism	10	1
Constitutional psychopathic state	72	4
Drug addiction	3	
Habit disturbance	8	1
Mental deficiency	65	3
Psychoneuroses	855	49
Posttraumatic state	7	1
Simple adult maladjustment	715	41
Total	1,735	100

These 1,735 cases comprised 86 percent of all discharged. The remaining 14 percent, representing patients with minor psychiatric admitting diagnoses, were as follows:

Diagnosis	*Number*	*Percent*
Psychoses	69	3.4
Organic neurologic diagnoses	32	1.6
Other diseases	147	7.3
No disease	27	1.3

[12] Report, Lt. Col. Samuel W. Joel, MC, subject: Report of Psychiatric Activities From December 1943 to October 1944 of (141st and 18th Station Hospitals) Special Neuropsychiatric Hospitals in Milne Bay, New Guinea, Southwest Pacific Area.

In the 32 cases with organic neurological diagnoses, the disorders were: Ill-defined organic condition of central nervous system, 10; neuritis, peripheral, six; spina bifida, three; epilepsy, three; concussion, cerebral, two; arteriosclerosis, cerebral, two; syphilis, cerebrospinal, one; syncope, cause unknown, one; extrapyramidal system disease, one; Friedreich's ataxia, one; migraine, one; and radiculitis, one.

Of the total 1,735 minor neuropsychiatric cases, 1,526, or 88.0 percent, were returned to duty; 174 were evacuated; 24 were sent to a training center; four were on sick leave; and seven were sent to the stockade. The difference between the total number of cases and those returned to duty (about 80 percent of all cases and 88 percent of minor neuropsychiatric) is accounted for by the psychotics (all of whom were evacuated) and by transfers of nonpsychiatric conditions for medical and surgical care.

The results of treatment of the 1,735 minor neuropsychiatric cases were as follows:

Diagnosis	*Number of cases*[1]
Alcoholism	10
Return to duty	(9)
Sent to stockade	(1)
Constitutional psychopathic state	72
Return to duty	(63)
Sent to training center	(4)
Sent to stockade	(5)
Drug addiction, all returned to duty	3
Habit disturbances, all returned to duty	8
Mental deficiency, all returned to duty	65
Psychoneuroses	855
Return to duty	(679)
Evacuated	(169)
Sent to training center	(5)
On sick leave	(2)
Posttraumatic state	7
Return to duty	(2)
Evacuated	(5)
Simple adult maladjustment	715
Return to duty	(697)
Sent to training center	(15)
On sick leave	(2)
Sent to stockade	(1)

[1] Figures in parentheses are subtotals.

Statistical summaries prepared in the special hospitals are presented in table 69.

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TABLE 69.—*Average stay in hospital, patients treated, and percent of minor psychiatric patients returned to duty in special hospitals, Southwest Pacific Area*

Station hospital	Average stay in hospital (days)	Patients treated (number)	Minor psychiatric patients returned to duty (percent)
148th	23	1,022	84
141st and 18th	19	2,010	88
125th	12	3,516	84
126th	27	1,117	88
171st	21	2,387	78

The high percentage of patients returned to duty by the special neuropsychiatric hospitals evoked incredulity in many general medical officers. Of course, some patients who had been discharged from a special neuropsychiatric hospital would be readmitted later to a general-type hospital. From this, it could be generalized that a large proportion of psychiatric patients discharged to duty were failing to perform and required rehospitalization. This belief became so widespread that it was feared obstacles might arise in the continuation of the program. Therefore, a special study was made to determine the facts in the case. In September 1944, a followup study of 1,429 patients discharged to duty following treatment for minor psychiatric disorders was completed. These patients had been treated in the 171st Station Hospital, the first treatment center for minor psychiatric disorders in the Southwest Pacific Area. They had been discharged between March 1943 and June 1944. The average time from discharge to recheck was 10½ months. The followup data obtained by machine records were as follows:

Disposition	*Number*	*Percent*
Total cases discharged to duty (75 percent of all minor neuropsychiatric patients)	1,453	
Unaccounted for	24	
Total cases followed up	1,429	
Remaining in theater after 10.5 months	1,168	81.7
Returned to United States for neuropsychiatric reasons	95	6.6
Returned to United States for other reasons (rotation, wounded, organic illness, accident)	158	11.1
Dead or missing in action	8	.6

Of these 1,168 former patients remaining in the theater, 63 (5.4 percent) were in a hospital. This proportion is not very much higher than the average hospitalization ratio for all personnel in the theater due to disease, in 1944, about 4 per 100 strength.

A second and similar study was made on patients discharged to duty by the 18th Station Hospital; 88 percent of the patients at this hospital had returned to duty. Machine records results on these cases were as follows:

Results	*Number*	*Percent*
Total cases followed up	338	100.0
Remaining in theater after 7 months	279	82.5
Returned to the United States for neuropsychiatric diagnosis	27	8.0
Returned to the United States for other reasons	30	8.9
Dead	2	.6

Of those patients still in the theater, 10.4 percent were in the hospital for some reason at the time of the study.

Thus the pessimism regarding the service of discharged minor psychiatric patients was not justified. They continued on a duty status in a large proportion of cases and did not have a high rate of rehospitalization.

In October 1944, all operating hospitals for the treatment of patients with minor psychiatric disorders were disbanded. This was not done intentionally but through inadvertence. The theater was preparing for larger military operations in the Philippines and Japan where very few small station hospitals would be needed. The War Department had agreed to the consolidation of most station hospitals into 1,000- or 1,500-bed general hospitals. In ordering the changeover, the fact that certain small station hospitals were designated for neuropsychiatry was overlooked. When this unfortunate result was called to his attention, the theater chief surgeon immediately designated the 125th Station Hospital (250-bed), Leyte, P.I. (fig. 58), to be utilized early in the Leyte operation, for minor

FIGURE 58.—125th Station Hospital, Leyte, 1944.

neuropsychiatric cases. The officer and enlisted personnel who had been operating the 18th Station Hospital were assigned to the 125th and continued their operation as before. The chief surgeon also agreed to designate two 1,000-bed general hospitals in the Manila area for neuropsychiatry. One of these was subsequently designated for psychoses and neurological disorders and the other for treatment of minor psychiatric cases. The 125th Station Hospital was shipped to Tacloban, Leyte, with its psychiatric personnel and equipment in December 1944, and was far enough along in construction to begin admitting patients on 26 January 1945.

The effectiveness of the special hospitals for treating minor psychiatric cases is reflected in the statistics on evacuation of patients before the hospitals started operation, during operation, and after they ceased operation in early October 1944, as follows:

Period covered	*Rate per 1,000 per year*
1943:	
Before operation, 3d quarter	18.66
1944:	
During operation, 3d quarter	5.27
After operation, 4th quarter	27.0
Full year	9.2

This tabulation shows that, during the operation of the special hospitals, the evacuation of minor psychiatric cases was reduced to less than one-third of what it had been previously; following discontinuance of the special hospitals, the evacuation rate rebounded to five times what it was during operation of the hospitals.

In its 10-month period, the consultation services of the 141st and 18th Station Hospitals examined 2,371 patients. Diagnoses were as follows:

Diagnosis	*Number of cases*
Organic neurologic diagnoses	193
No neuropsychiatric disease found	409
Psychiatric diagnoses	1,769
Total	2,371

Diagnoses in the 1,769 cases were as follows:

Diagnosis	*Number of cases*
Alcoholism	15
Constitutional psychopathic state	64
Drug addiction	5
Habit disturbance	18
Mental deficiency	36
Psychoses	90
Psychoneuroses	995
Posttraumatic state	7
Simple adult maladjustment	539
Total	1,769

General Hospitals

During the first 9 months of 1944, the general hospitals in the Southwest Pacific Area functioned largely, as far as neuropsychiatry was concerned, in the care and treatment of psychoses, in the "boarding" of psychotics and severely handicapped neurotics for evacuation to the United States, and in the training of psychiatric personnel. Neuropsychiatric patients were kept out of general hospitals for the most part unless they were found to be unsalvageable in the special station hospitals where they had been treated. This was found advisable since it seemed to have a harmful effect upon minor psychiatric patients to be associated with other patients who had been "boarded" and waiting for transportation to the United States.

The psychoses were treated in specially designed and constructed prefabricated structures. Because such a large proportion were very disturbed and hyperactive, it was necessary to have more individual rooms in closed wards than was usual in the United States. A sizable exercise yard with a high fence was built beside each closed ward to permit patients to work off some energy. Some wards had continuous tubs for sedation. A 1,000-bed general hospital would ordinarily have 100 closed-ward beds (figs. 59 and 60).

The rate of psychosis in the Southwest Pacific Area was about 5 per 1,000 per year throughout the war. The rate of psychosis for troops in New Guinea was twice the rate for troops in Australia. Two divisions, with assigned psychiatrists, arrived in New Guinea in July and August 1944. The psychiatrists were amazed to note that, within 2 weeks, the incidence of psychosis in the divisions jumped up to the theater pattern. Although psychological stresses in New Guinea were considerable, there is room for doubt that they were solely responsible for this incredible rate of psychosis.

About half the psychotics were considered schizophrenic reactions, and the remainder were diagnosed as "unclassified" or "undiagnosed" psychosis. The typical psychotic reaction in the Southwest Pacific Area began quite abruptly with marked excitement, restlessness, bewilderment, and agitation. Regression to infantile levels was often seen. Many were suicidal. They were usually inaccessible, and their thinking was too fragmentary to reveal significant trends in ideation. Their course was stormy but inclined to rapid improvement even though electroshock was not available. Malingering of psychosis was uncommon, although many who recovered before being returned to the United States encouraged the impression that they had malingered.

Satisfactory treatment of psychoses in forward areas was impossible. Every effort was made to evacuate them immediately, usually by air, to the nearest hospital with security accommodations. Many of these patients were so disturbed as to require the constant attention of two or three

FIGURE 59.—Psychiatric patient in a closed ward with screening and fragile woodwork, Southwest Pacific Area.

corpsmen in an all-tent hospital while awaiting evacuation. Intravenous and intramuscular sedatives were used liberally. Attention had to be given to fluid intake as many became rapidly dehydrated because of hyperactivity and the heat.

In general hospitals and other hospitals far enough from the front

FIGURE 60.—Closed-ward psychiatric patient on mattress on the floor in seclusion ward, Southwest Pacific Area.

to have had time to build security wards, psychiatrists were invariably in charge. Treatment consisted of good medical and nursing care, precautions against suicide, sedative packs and sometimes continuous tubs, sedation if necessary, and a course of subshock insulin. Facilities for administering electroshock treatment were not available in the Southwest Pacific Area

until 1945. In 1943, the neuropsychiatric consultant attempted to discover the attitude of The Surgeon General or War Department toward electroshock therapy. When no policy was forthcoming, efforts were made to requisition an ECT (electroconvulsive therapy) apparatus from U.S. medical supply depots. It was impossible to tell whether a requisition had been lost or was in process, or the material was in transit, or the equipment had arrived and was lost in some dump. It was not until 1945 that an ECT apparatus appeared in the theater even though Col. (later Brig. Gen.) William C. Menninger, MC, and his staff in the Surgeon General's Office were doing everything possible throughout 1944 to have the requisition honored and the machines shipped.

Early in 1944, the Chief Surgeon, SWPA, delegated the responsibility of reviewing general hospital disposition board proceedings to base surgeons. This change was made to expedite the evacuation of patients to the United States. A considerable number of general hospital beds were being occupied by patients of all types who were not salvageable for further service in the theater and who had been "boarded" for evacuation to the United States. By eliminating the time required to route board procedures to Headquarters, USASOS, SWPA, efficiency in utilization of bedspace was improved and construction of additional beds was reduced. However, greater responsibility was placed upon the professional staff of the general hospitals. Decisions of the disposition boards, though largely professional, were expected to conform to theater policies regarding conservation of manpower and the probable duration of the illness.

As a result, some general hospitals virtually made their own policy regarding criteria for evacuation to the United States. This had no effect on the evacuation of psychoses since it was theater policy to evacuate to the United States anyone who developed a psychosis, even though he recovered within a few weeks. It did have a marked effect on the evacuation of patients with minor psychiatric disorders, since, if a general hospital disposition board inadvisedly recommended the evacuation of such a case, no one on the staff of the base surgeon had sufficient professional standing to question the recommendation. This made little difference while the special hospitals for the treatment of minor psychiatric disorders were operating but accounted, in part, for the fivefold increase in the evacuation rate of minor psychiatric disorders in the last quarter of 1944, after the special hospitals were closed.

The neuropsychiatric sections in general hospitals were of great service in training personnel for psychiatric work. Most general hospitals had a thoroughly competent and experienced psychiatrist as chief of section and sometimes a second well-qualified psychiatrist. Many had excellent psychiatric nurses in charge. It was thus possible to give on-the-job training to corpsmen and inexperienced nurses. Medical officers with an interest in psychiatry were also given training, and, in some cases, became so profi-

cient that they were transferred to psychiatric positions of responsibility in other hospitals.

One of the most valuable services of general hospitals was to train medical officers and corpsmen assigned to troop transports in the care of psychotic patients. Some of these personnel were regularly assigned to the transport and others were being returned to the United States on rotation. In either case, they were required to assume full charge of the psychotic patients during the 30-day voyage home. Most of the personnel had had no experience with psychotics and were quite unaware of the difficulties that would arise in the event of naive assumptions about the behavior of such patients, such as: "He'll eat when he gets hungry enough" or "he's just bluffing." Many lives were saved by the training which the personnel of the medical ship platoons were required to undergo in general hospitals in the Southwest Pacific Area.

Evacuation of Psychotics to United States

The evacuation of psychiatric disorders other than psychoses was not difficult since such patients could travel in troop-type accommodations and could be handled medically by the ship dispensary. The evacuation of psychotics, however, presented many problems. Most required constant close supervision, with about 20 percent continuously or periodically disturbed and hyperactive. It would have been difficult for a well-trained psychiatric team to manage psychotic patients during a 30-day voyage; with medical officers and corpsmen who were inexperienced in such cases, the situation became close to bedlam. One medical officer who accompanied patients on one trip, in 1944, reported in part to The Surgeon General, as follows:

> Great confusion existed during the loading of psychotic patients. Some wandered away and were hard to retrieve. Hatches open for loading cargo and mail were a constant danger. Hold number five was used for 132 psychotics. It was very inadequate for this purpose as it had on its walls such hazards as firemen's axes, removable metal bars, glass mirrors, and open electric lights. The rooms were crowded with bunks in tiers of three from floor to ceiling and with very narrow spaces between them. It seemed that most of the medical corpsmen assigned to the ward were hospital cooks, chauffeurs, and mechanics, with only a few trained ward personnel. Not one was experienced in dealing with psychotic patients. Of the three medical officers assigned only one had experience in psychiatry. No nurses were available. This is the worst experience I ever had in my life in handling psychotic patients.

The care of patients during evacuation to the United States was the responsibility and under the control of the Zone of Interior; SWPA command had no authority to deal comprehensively with the problem. In January 1943, the Neuropsychiatric Consultant, SWPA, officially pointed out to The Surgeon General the need for training the personnel of medical ship platoons in the care of psychotics. If any such training was accom-

plished in the United States, it was not apparent in the personnel who picked up evacuees in the Southwest Pacific Area. A program of training medical ship platoon personnel in the care of psychotics was set up in the Southwest Pacific Area in January 1944. Some of the personnel assigned to the ships were given training in general hospital neuropsychiatric wards while they were in SWPA ports awaiting the turnaround of their ship. At the same time, SWPA medical personnel who were being returned to the United States on rotation were formed into provisional medical ship platoons, and some were given training in the care of psychotics while awaiting departure at ports of embarkation.

As the theater built up in strength, the number of psychotics to be evacuated each month increased beyond the number that could be accommodated on vessels returning to the United States. On 9 September 1944, the neuropsychiatric consultant reported to the chief surgeon that, during the past 3 months, there had been an average of 444 new cases of psychosis per month. During the same period, ship accommodations permitted evacuation of psychotics on an average of 237 patients per month. On 1 September 1944, a total of 1,009 psychotic patients were in theater hospitals. To eliminate this backlog and to keep abreast of the current caseload of psychosis would have required an evacuation average of 700 per month during the remainder of that year. The largest number of psychotics that had ever been evacuated by returning ships in any previous month was 400 in July 1944.

In November 1944, largely as a result of the untiring efforts of Maj. Lloyd W. Taylor, MC, evacuation officer for the Southwest Pacific Area, the War Department agreed to provide air evacuation for psychotics and for other medical patients. Five psychotic patients were permitted among the 20 patients evacuated by each C–54 aircraft. Patients were picked up at New Guinea or Biak airstrips and flown to Honolulu where they were admitted to Tripler General Hospital for rest and necessary care before continuing the flight to a debarkation point on the west coast of the United States. The flying time for this journey was a little more than 30 hours, whereas by ship the travel time was 30 days. Thus, it was possible to transport the most disturbed psychotic patients by air since they could be heavily sedated for the duration of the trip.

By the end of 1944 with troop strength up to 800,000, about 22 new cases of psychosis were occurring as a daily average in the Southwest Pacific Area, and this number of psychotic patients had to be evacuated to the United States daily to avoid the multiple disadvantages of permitting the patients to accumulate in the theater. This was a herculean task, mainly because of the generally negative, unpleasant effect it engendered in most personnel whose active cooperation was required. It was easier to move 100 wounded than 10 psychotics.

During 1944, psychosis accounted for 14 percent of total evacuations

from the Southwest Pacific Area, and other psychiatric disorders for 16 percent. The psychiatric total of 30 percent of evacuations was reduced from the 55 percent in 1943. The rate of evacuation for all neurologic and psychiatric conditions during 1944 was 17 per 1,000 per year. It varied from a low of 7.6 in June to a high of 48.7 in December. The December rate reflects the contribution the airlift made to evacuation resources. During 1944, the rate of evacuation for minor psychiatric patients was 9.2 and for psychotics was 7.9 per 1,000 per year.

Personnel

Psychiatrists.—It was possible during 1944 to utilize the available psychiatric personnel more effectively by reason of their concentration in special neuropsychiatric hospitals and general hospitals. This permitted those who were incompletely trained to work under the guidance of well-qualified psychiatrists. The professional growth of many of the younger and less well-trained psychiatrists under this system was remarkable, and it was possible to promote them to positions of greater responsibility as time went on.

At all times, however, a number of station, field, or evacuation hospitals operated in relatively isolated situations with only a single psychiatrist. Such posts required a psychiatrist of sufficient competence to function without assistance or supervision. An inventory of all medical officers classified as psychiatrists was made in July 1944, and at the same time, the needs of each operating hospital for psychiatrists with qualifications appropriate to the assignment were also determined. Table 70 gives the results of this inventory.

At this time, it was estimated that 10 percent of the hospital patients in the theater were psychiatric; yet the number of psychiatrists available represented only 2.5 percent of the medical officers present in the theater. Even if more psychiatrists had been available from the United States, they could not be requisitioned because the theater as a whole had an overstrength of 50 medical officers. The best that could be done was to make the

TABLE 70.—*Classification of neuropsychiatrists on duty and of neuropsychiatrists needed in the Southwest Pacific Area, July 1944*

Classification	Neuropsychiatrists on duty	Neuropsychiatrists needed	Shortage
Class A (capable of supervision)	20	38	18
Class B (capable of working alone)	40	60	20
Class C (must be supervised)	39	84	45
Total	99	182	83

SWPA situation known to the Surgeon General's Office and to request that future hospitals sent to the theater be at TO strength in psychiatric personnel.

Nurses.—Nursing for psychiatric patients was greatly improved following the assignment of Capt. (later Maj.) Helen J. Gray, ANC, to the chief surgeon's staff in March 1944. Captain Gray was well qualified in psychiatric nursing and functioned effectively in locating nurses with previous psychiatric experience and in conducting and arranging for the training of nurses and corpsmen assigned to neuropsychiatric services. She was also able to promote the continuous assignment of nurses to psychiatry in place of the rotational system that had been in general use.

Clinical psychologists.—No provision was made by the Army for the services of clinical psychologists until August 1944. Furthermore, materials for the administration of intelligence tests were not available. A few psychiatrists had come to the theater with their own personal test materials. Intelligence testing had to be improvised in each hospital. Some hospitals were fortunate enough to find an enlisted man with training in clinical psychology and to arrange for his assignment to the neuropsychiatric service but, for the most part, little could be done in this field beyond intelligence testing. When the War Department provided for a TO position for a clinical psychologist in general hospitals in 1944, it was not possible to requisition any from the United States because, in the new table of organization, a clinical psychologist replaced a medical officer. The theater was overstrength in medical officers, but commanding officers of general hospitals invariably refused to give up a medical officer to gain a clinical psychologist. It was not until February 1945, when medical officers for the theater as a whole were insufficient to cover the TO requirements that a requisition for clinical psychologists was sent to Washington, but this requisition had not yet been filled when hostilities terminated in August.

Social workers.—The only social workers available in the Southwest Pacific Area were those supplied by the American Red Cross. All the specialized neuropsychiatric hospitals and some of the general hospitals had well-qualified psychiatric social workers assigned by the Red Cross. They helped in obtaining collateral information about patients, aided in the solution of family problems through contacts with social agencies in the family members' local community, and assisted in therapy of neurotic patients.

Occupational therapists.—The Army had no classification for occupational therapists. In the United States, they were employed in hospitals in a civilian status. In the Southwest Pacific Area, medical officers, nurses, and hospital corpsmen who had some proficiency and interest in this work were assigned to supervise occupational-activity programs (figs. 61 and 62). Capt. (later Maj.) Francis A. O'Donnell, MC, and Capt. (later Maj.)

FIGURE 61.—Psychiatric patients playing volleyball during their recreation period, Southwest Pacific Area.

Charles E. Test, MC, showed great ability in establishing activity programs and in procuring the great variety of nonstandard tools and materials necessary for interesting activities.

ESTABLISHMENT OF FIRST TRAINING CENTER

Many problems were connected with the return to duty of hospitalized military personnel. Many of these patients were discharged to a replacement depot for reassignment and travel orders. Some were reclassified for different military assignments because of some medical, surgical, or psychiatric condition which had been revealed in the hospital. Many complaints were heard about replacement depots; the most frequent was that soldiers were being held there for unduly long periods while they were being "processed" and awaiting transportation to their new assignment. Work details were formed to furnish nearby organizations with unskilled labor without regard for the physical limitations of the men. Some soldiers were returned to the hospital from the depot, and they blamed their relapse on

FIGURE 62.—An outdoor occupational therapy shop in the Southwest Pacific Area.

malassignment and interminable waiting for reassignment. Living and eating arrangements in most Army organizations in New Guinea and Australia were crude and drab, but replacement depots were worse by a large margin. Added to this were the lack of any esprit de corps ("no friends or buddies") and the nadir of loss of identity and personal appreciation. This amounted to a severe stress on the improved psychiatric patients who had been successfully treated in the hospital with a consequent return of some spirit and the anticipation of making a better adaptation to military life. If a former minor psychiatric patient did not relapse while in the replacement depot following hospital discharge, he was considered capable of adjusting to any reasonable duty assignment.

In addition to this difficulty in returning hospitalized personnel to duty were problems which related to prolonged convalescence following a debilitating illness, such as hepatitis, or to the necessity for a change of military occupation to some duty for which retraining was required. It was believed that a training center might provide rehabilitation, reconditioning, and at the same time retraining for a new occupation if necessary. This would permit the utilization of hospital beds for more severe illnesses. Patients

would not have to be held in the hospital for completion of convalescence and reconditioning to the point where they were ready for full duty.

It was also believed that a training center with its combination of competent medical service, reclassification service, and military discipline might be able to rehabilitate certain noneffective soldiers who appeared to lack motivation for service and were using physical complaints skillfully enough to gain repeated admission to hospitals. Such soldiers would ordinarily be diagnosed constitutional psychopathic state or simple adult maladjustment in the hospital. If they failed after a prolonged trial at the training center, they might be considered for administrative discharge from the Army under AR's 615-368 or 615-369. Frequently, in some theaters, this type of noneffective soldier was evacuated with a medical diagnosis of some sort as a favor to the commander of the man's organization. In the Southwest Pacific Area, this "abuse of medical channels" had been substantially blocked.

NEUROPSYCHIATRY IN COMBAT UNITS

On 6 November 1943, the War Department issued an order (WD Circular No. 290) providing a position in each combat division for a psychiatrist. None of the three divisions in the Southwest Pacific Area, at the time, had a psychiatrist. In 1944, seven additional divisions moved into the theater, three with psychiatrists. In 1945, seven more divisions arrived, and four had psychiatrists. By 1 August 1945, there were 17 divisions with only seven division psychiatrists. There were also two Army headquarters in the theater. It was possible for an army surgeon to appoint a neuropsychiatric consultant to his staff. One army appointed a medical officer to this position; the other never filled the position.

It took a neuropsychiatrist of unusual ability and maturity to function adequately in an army or a division. It was undoubtedly difficult for the Surgeon General's Office to locate psychiatrists of the required caliber for these positions.

The Neuropsychiatric Consultant, SWPA, had several discussions during 1943 and 1944 with Col. (later Brig. Gen.) William A. Hagins, MC, Surgeon, Sixth U.S. Army, regarding the placement of psychiatrists in division and army headquarters. Colonel Hagins seemed interested but cautious. It was finally agreed that he would accept a psychiatrist for assignment to one of the divisions and place him on temporary duty from time to time with the Sixth U.S. Army headquarters. This was a difficult assignment because it seemed reasonable to expect that it would take some time to operate effectively in a division and then additional time to become fully effective in an army headquarters. Maj. William H. Dunn, MC, Chief, Neuropsychiatric Section, 9th General Hospital, was selected for the transfer. He was eminently qualified professionally and personally and was

interested in the assignment. Before the transfer could be effected, however, his services were requested by the War Department for assignment as consultant in neuropsychiatry in the Fifth Service Command in the United States.

Since no other psychiatrist in the theater was known to have the qualifications for the position, and who could be spared from his current assignment, the transfer to Sixth U.S. Army headquarters had to be postponed. It later became apparent that Capt. (later Maj.) Jules V. Coleman, MC, psychiatrist in the 38th Infantry Division, had the necessary qualifications for the Sixth U.S. Army position. Before his transfer could be effected, however, the services of Lt. Col. (later Col.) M. Ralph Kaufman, MC, formerly Neuropsychiatric Consultant, SPA, became available, and Colonel Kaufman was assigned to the Sixth U.S. Army as consultant in neuropsychiatry shortly before the war ended.

38th Infantry Division

The work of Major Coleman was outstanding. He developed a good functioning division clearing station and an effective reconditioning company, and was active in orienting both medical and line personnel. He gave a course in "Psychological Training" for all personnel and prepared materials explaining battle fear, physical and mental hardening, individual self-confidence, team spirit, the buddy system, and combat leadership.

For a 14-day period of intensive combat on Luzon, from 4 to 17 February 1945, Major Coleman furnished the following statistical analysis: [13]

Of 1,116 patients admitted to the clearing station, 286, or about 25 percent, presented neuropsychiatric complaints (including cases in which physical exhaustion was the main feature, and in which response to sedation and rest was rapid and complete). Of these, 214, or 75 percent, were returned to duty from the clearing station, usually after 2 or 3 hospital days, and 55 were evacuated. There were nine repeaters, most of whom were returned to duty in their own organization.

Of the 105 patients (37 percent of the total neuropsychiatric load) carried in the reconditioning section, 95, or 90 percent, were returned to duty; three were evacuated; and seven were reassigned to service units within the 38th Infantry Division. In about 15 cases, men returning to duty were given notes to their regimental adjutants, with the recommenda-

[13] (1) Letter, Maj. Jules V. Coleman, MC, Neuropsychiatrist, 38th Infantry Division, to Director of Neuropsychiatry, Office of The Surgeon General, War Department, Washington, D.C., 26 Feb. 1945, subject: Care of Psychiatric Patients During Combat in a Division Clearing Station. *See also* chapter XVII. (2) Letter, Lt. Col. Frank B. Ramsey, MC, Surgeon, Headquarters, 38th Infantry Division, to Surgeon, AFWESPAC, 3 Oct. 1945, subject: Medical History of the 38th Infantry Division for July, August, and September 1945. (3) Training Memorandum No. 9, 9 July 1945, subject: Psychological Training. (4) Psychological Training Aid No. 1, 38th Infantry Division, 17 July 1945, subject: "Battle Course" Syllabus for Regimental Medical Officers. (5) Psychological Training Aid No. 2, 38th Infantry Division, 6 Aug. 1945, subject: Combat Leadership.

tion that the returned soldiers be allowed to remain in the regimental kitchen area a few days and that they be checked by a medical officer before their return to their original assignments.

Leyte Campaign

The attack on the Philippines began at Leyte on 20 October 1944 (map 27). In the early days of the battle, the clearing stations had insufficient beds to hold casualties longer than was absolutely necessary. Almost all patients of whatever type were evacuated to Biak and New Guinea bases as quickly as transportation became available. Evacuation was carried out largely by landing craft that had brought up troops or supplies, but some naval hospital ships were also used. Until 1 December, most psychiatric casualties were evacuated without holding for a few days with sedation, rest, and reassurance. During this period, 9 percent of the patients reaching New Guinea were psychiatric. This amounted to one psychiatric casualty to every five wounded in action. Two divisions, in Leyte, who had psychiatrists were able to retain some of the milder "exhaustion" cases for a day or two, depending on circumstances at the time, and were thus able to return some of their patients to duty (fig. 63).

The furnishing of prompt medical service close to the combat action was very difficult in beach landing operations. Wishing to do this and recognizing the advantage in doing this was not enough to make it possible. The total situation must permit it. The situation must provide extensive landing beaches, a good road network, a large number of ships, unquestioned naval and air superiority, and either buildings adaptable for hospitals or a suitable terrain and climate for setting up tent hospitals. None of these conditions could be met in New Guinea or Leyte. Consequently, all types of battle casualties had to be evacuated far to the rear in all SWPA campaigns up to 1945 (figs. 64 and 65) (map 28).

During the month of December 1944, Lt. Col. Malcolm J. Farrell, MC, and Maj. Ivan C. Berlien, MC, from Colonel Menninger's staff in the Surgeon General's Office, visited the Southwest Pacific Area on a survey trip. In addition to being of great assistance to the theater neuropsychiatric consultant and the units they visited, they submitted an excellent comprehensive report on conditions at the end of 1944.[14]

USE OF ERGOTAMINE TARTRATE

In May 1944, Heath and Powdermaker [15] reported that ergotamine tartrate was "effective" in the treatment of panic states following battle

[14] Letter, Lt. Col. Malcolm J. Farrell, MC, and Maj. Ivan C. Berlien, MC, to The Surgeon General, Army Service Forces, Washington, D.C. (Thru: Chief Surgeon, USASOS), 16 Jan. 1945, subject: Report of Visit to Medical Installations in SWPA.

[15] Heath, R. G., and Powdermaker, F.: Use of Ergotamine Tartrate as Remedy for "Battle Reaction." J.A.M.A. 125: 111–113, 13 May 1944.

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MAP 27.—Leyte invasion, 20 October 1944.

FIGURE 63.—Neuropsychiatric ward, 69th Field Hospital, Leyte, 1944.

exposure. Their theory was that such panic states were accompanied by autonomic imbalance which the ergotamine corrected. Statistical results were not given.

On 2 July 1944, the 18th Station Hospital began a study of the effects of ergotamine tartrate; only patients who exhibited panic-type symptoms were included. By the time the supply of tablets was exhausted, 66 patients had been enrolled in the project. In 16 cases, it was necessary to discontinue medication for administrative reasons (patient transferred or evacuated for other reasons). In seven cases, symptoms were so aggravated during the therapy that the drug was discontinued. In nine cases, definite but mild symptoms of ergotism appeared. Eliminating these 32 cases then, the ergotamine was administered in adequate dosage to 34 patients. The dose was 2 mg. by mouth every 3 hours to a maximum of 24 mg. a day and a maximum of 10 days' treatment. Of the 34 patients, 25 were apparently helped. This was an improvement rate of 74 percent. All patients who had been exposed to battle were helped, but only 34 percent of nonbattle cases showed any improvement. The symptoms which ergotamine tartrate controlled best were anorexia, insomnia, jittery feeling, tremors, depression, irrit-

FIGURE 64.—Educational building containing surgical wards, 5th Field Hospital, Santo Tomas University, Manila, P.I.

FIGURE 65.—Main building containing medical wards, 5th Field Hospital, Santo Tomas University, Manila, P.I.

MAP 28.—Medical evacuation routes from Leyte.

ability, nightmares, feelings of panic, startle reactions, excessive sweating, and a sense of weakness. The drug had little or no effect on dyspnea, headache, vertigo, or functional pain.

Without any therapy, about 75 percent of the casualties who exhibited acute panic-type symptoms were swiftly helped as soon as they were hospitalized well behind the lines. Similar favorable results were achieved with group therapy, amobarbital sedation, and narcosynthesis (Lt. Col. Roy R. Grinker, MC, and Maj. John P. Spiegel, MC). Thus the case for the utility of ergotamine was not proved.

EFFECT OF ATABRINE ON PSYCHOSIS RATE

Malaria was endemic in New Guinea and the Pacific islands, and it was necessary for all troops in those areas to take Atabrine in large doses to suppress the disease. The troops had a sense of foreboding about Atabrine, and many did not want to take it. A complicated ritual known as "Atabrine discipline" was developed and enforced by all line commanders (pp. 531–532). If a case of malaria showed up in a unit, the commander was deemed responsible for improper enforcement of Atabrine discipline. It reflected on his efficiency and could even result in his reclassification.

An idiosyncratic or toxic effect of Atabrine in some soldiers was suggested as one way of explaining the unusual incidence of certain illnesses. These suspicions had to be kept secret for morale reasons and because of possible political effects. The official medical position was that Atabrine had no deleterious effect. Nevertheless, the possibility lingered in the neuropsychiatric consultant's mind that the high rate of psychosis in the Southwest Pacific Area was due in part to toxic effects of Atabrine in certain susceptible individuals. Psychiatrists throughout the theater, however, were virtually unanimous in discounting toxic factors in the psychotics they saw. The psychological stress was deemed sufficient to account for the prevalence of psychosis.

Certain experiences which could not be publicized at the time were hard to explain except on a toxic theory. For instance, the pathologist on a general hospital staff wished to study the effect of Atabrine on the platelet count and induced 30 of his medical officer colleagues to start taking the drug a month before the hospital was to be transferred from Australia to New Guinea. During this month, three of the 30 medical officers developed delusions and hallucinations.

The second and third observations that aroused suspicion were the sudden increase in the psychosis rate in the first two divisions that arrived in the Southwest Pacific Area with psychiatrists. These were the 11th Airborne Division and the 38th Infantry Division, arriving in July and August 1944. The psychiatrists of these divisions reported that the incidence of psychosis rose incredibly during the first month of their staging in New Guinea. Both divisions had trained outside the continental limits of the United States for more than a year before they arrived in New Guinea, and in one division, doses of suppressive Atabrine had been taken for several months. The 38th Division medical report,[16] dated 10 October 1944, contains the following paragraph:

> There has been an abrupt increase in the rate of psychosis. In the nine-month period from November 1943 through July 1944, there were only 10 cases of psychosis in the Division, whereas in the month of August 1944 alone there were 9 cases. (Division ar-

[16] Letter, Lt. Col. Frank B. Ramsey, MC, Surgeon, 38th Infantry Division, to Surgeon, Eighth U.S. Army, 10 Oct. 1944, subject: Medical History of 38th Infantry Division, Third Quarter, 1944.

rived in New Guinea August 4.) In September 1944, there were 6 more cases of psychosis. The general character of these psychotic reactions is schizophreniform, with acute onset and generally no history of previous difficulties or complaints within the unit.

The experience in the 11th Airborne Division was virtually the same.

Two efforts were made by the neuropsychiatric consultant to investigate the possible role of Atabrine in the production of psychoses. One of these was a plan to eliminate the use of suppressive Atabrine in Base A where mosquito control had progressed to such a point that the drug was considered no longer required. Since there were about 15,000 troops in Base A at the time, it was believed that the psychotic rates after Atabrine was discontinued would reflect any influence it might have been exerting by comparison with the rates of incidence while it was in use. Malaria control was a command function by regulation, and just at the time the chief surgeon's proposal to discontinue Atabrine in Base A reached Headquarters, USAFFE (U.S. Army Forces in the Far East), for necessary action, the commander of Base A started to tighten up on Atabrine discipline. The proposal to discontinue the use of the drug was, therefore, not put into effect on the ground that it would be confusing and embarrassing.

A second attempt to investigate the possible Atabrine effect was clinical. Capt. (later Maj.) Jerome D. Frank, MC, and a small research team were attached to the 4th General Hospital to study the etiology of psychosis (see appendix I), including the Atabrine effect. This research produced findings that were interpreted to mean that Atabrine had no discernible effect in producing psychoses.[17]

[17] See also appendix K for another discussion on Atabrine psychosis.—A. J. G.

CHAPTER XV

Central Pacific Area

M. Ralph Kaufman, M.D.

CENTRAL PACIFIC AREA

The Central Pacific Area, where Fleet Admiral Chester W. Nimitz retained direct command (p. 429), included the Marshall, Gilbert, and Marianas Islands (map 17). After successful campaigns in this area, these islands became part of the Pacific Ocean Area Command and, later, the Western Pacific Base Command (map 29).

This section deals with the Gilberts, Marshalls, and Marianas campaigns, for which little psychiatric data are available. Practically nothing is known about the psychiatric situation during those campaigns, except some impressionistic data which have been gathered by Dr. Lindsay Beaton from the personal recollections of the psychiatrists who may have happened to be involved in that situation. The Central Pacific Area had no professional consultants, as such. Whatever planning was done was apparently accomplished at the level of the division psychiatrist or by interested medical officers. The only available data refer to Saipan and are from a report of the 27th Infantry Division psychiatrist.

In an effort to trace down the problem of psychiatric casualties during the seizure of the Gilberts and Marshalls, the official history of those campaigns has been reviewed. One finds reference to the usual sort of nervous trigger happiness among troops and the usual simple anxiety problems, but nowhere is there any mention of any major problem of psychiatric casualties in any of these island invasions. Probably this is, in part, due to the fact that these were all short campaigns, measured in days rather than weeks or in months, as was Okinawa. And every one of them was a relatively easy operation, with the single exception of the nightmare of Tarawa; however, since the invasion of Betio was a Marine Corps operation entirely, it does not enter into the province of this history.

Kwajalein has been described as the smoothest operation of the Pacific war, with relatively few casualties of any sort, and, of course, relatively few psychiatric casualties. Saipan, however, although a brief campaign, had intense combat with many casualties,[1] but with relatively few cases of psychiatric illness.

[1] Crowl, Philip A.: Campaign in the Marianas. United States Army in World War II. The War in the Pacific. Washington: U.S. Government Printing Office, 1960, p. 265.

MAP 29.—Hospitals in

Central Pacific Area, 1943.

The report of the 27th Infantry Division psychiatrist, Maj. Albert D. Pattillo, MC, 20 July 1944, gives some specific data on the Saipan operations.[2]

The Clearing Station of the 102d Medical Battalion was set up and receiving patients on 20 June 1944. Casualties were evacuated along the usual channels to the Clearing Station and thence to the 38th Field Hospital.

The Division Psychiatrist was assigned to the 38th Field Hospital for temporary duty. This hospital was located in an abandoned Japanese village. This proved to be an unfortunate location, as far as psychiatric casualties were concerned, because we were between a battery of heavy artillery and the Aslito Airfield. This placed us within range of error of enemy bombing planes and during the artillery fire, some of the more acute cases would literally jump off their cots.

Four squad tents were assigned to receive the combat fatigues and psychiatric casualties. These were further divided into mild and severe cases.

On admission, if the patient's condition permitted, he was given hot food, a cool shower and shaved. He was then put to bed and visited by the Psychiatrist. Sodium Amytal was given promptly, in doses of 6, 9 or 12 grains as was indicated by the patient's condition. The more severe cases received 7½ grains of Sodium Amytal intravenously. These included those cases resembling catatonic praecox, acute manic depressive episodes, amnesia states and Parkinsonism. Those cases not responding to sedation, diet, ventilation and psychotherapy in 36 or 72 hours were evacuated to ship.

Treatment in all cases consisted of:

1. Sedation, Sodium Amytal or Sodium Pentothal in doses large enough to insure rest.
2. Psychotherapy, including explanation, reassurance and suggestion.
3. Supportive treatment, such as adequate hot rations, cigarettes, war news and interviews with the hospital chaplains.

In the majority of cases the period of hospitalization was 4 to 5 days.

Psychotherapy was usually conducted by the bedside in tone of voice that could be heard by the other patients in the ward. This was found to be of special benefit when "return to duty" was discussed. In many cases the patient was simply asked "Have you rested enough to return to duty with your outfit?" In some instances it was necessary to return the individual to duty in other than a combat unit; for example, the Field Train. A sympathetic, yet firm, attitude was maintained in regard to "return to duty" by the psychiatrist.

By direction from higher authority, I was instructed not to evacuate the psychiatric casualty unless absolutely necessary. For this reason, some were returned to duty against my better judgment.

A complaint was registered by one Regimental Surgeon who stated "Those psychos you are returning to us are not fit for frontline duty and are ruining the morale of those in the Field Train." In my opinion, duty in the Field Train is too near the forward area for some individuals.

Prior to the campaign, it was agreed that all psychoneurotic patients would be tagged "Combat Fatigue." This term has little diagnostic significance but to the inquisitive soldier, implies a temporary or non-evacuable condition, as well as suggesting "return to duty" after a few days rest. I feel that this, in part, accounts for the large number returned to duty. The proper psychiatric diagnostic term was applied in the Rear Echelons. The term "Combat Fatigue" proved a bit too confusing because some

[2] Annual Report, Medical Department Activities, 27th Infantry Division, for 1944, dated 1 Jan. 1945, inclosure 3 thereto, 20 July 1944, subject: Report of Psychiatric Casualties in the 27th Infantry Division During the Saipan Operation.

were hospitalized for true "Combat Fatigue." However, it should be remembered that fatigue or exhaustion plays a definite predisposing role.

The total number of patients admitted to the Clearing Station and the 38th Field Hospital from 19 June 1944 to 12 July 1944 was 272. This was 1.6 percent of the entire command. Breakdown of these cases is as follows:

True Combat Fatigue and Mild Psychoneuroses		181
Psychoneuroses		91
Anxiety State	55	
Hysteria	8	
Conversion Hysteria	11	
Reactive Depression	5	
Unclassified	12	

There were 62 cases evacuated because of the severity of the reaction and convalescence was deemed to be over two weeks.

Psychoneurosis

Anxiety State	30
Hysteria	8
Conversion Hysteria	8
Reactive Depression	4
Unclassified	12
Total	62

Those listed as "Unclassified" included: those resembling:

1. Acute Psychiatric episodes
2. Parkinsonism
3. Catatonic
4. Acute amnesic states
5. Those with marked shaking, trembling and severe startle reaction.

Admissions for psychoneurosis and combat fatigue was 7.55 percent of the total battle casualties or 5.86 percent of the total admissions. Of the 272 admissions, 62 were evacuated, 202 returned to duty, and 8 remained in the Hospital as of 16 July 1944.

Summary:

1. Those figures compare very favorably with those reported from other areas of operation.

2. Admissions occurred primarily in young individuals.

3. Treatment in forward areas with sedation and psychotherapy is apparently the method of choice.

4. Attempts to screen out the potential psychiatric casualty when in garrison has paid dividends.

5. Psychiatric lectures, as prescribed by TB MED 12, to all Medical Officers of the Division, proved beneficial.

Recommendations:

1. That a place for duty be made available for those soldiers not capable of returning to combat service, preferably in a service area, away from the sound of artillery and small arms fire.

2. That every effort be exerted, by all concerned, to screen out the potential psychiatric casualty when the Division again goes into Garrison duty.

PACIFIC OCEAN AREA

The USAPOA (U.S. Army in the Pacific Ocean Area) was activated on 1 August 1944. The POA command included the South Pacific Base Command (formerly U.S. Army Forces in the South Pacific Area), the Central Pacific Base Command, consisting of the Hawaiian Islands and a series of small island bases on which Army troops and Navy personnel were stationed, and the forward areas, consisting of the Marshall and Gilbert Islands and the Marianas, and later, the Palaus and the Ryukyus.

Lt. Col. (later Col.) M. Ralph Kaufman, MC, the neuropsychiatric consultant of the South Pacific Base Command, was assigned on detached service to the Office of the Surgeon, Brig. Gen. Edgar King, Headquarters, POA. The surgeon's office of this headquarters had had no full-time professional consultants up to that time; instead, a number of qualified medical officers in the hospital on Oahu, T.H., had been utilized in that capacity. From a professional point of view, this was not satisfactory. Therefore, a neuropsychiatric consultant and a surgical consultant, both from the South Pacific, were placed on detached service, allowing full-time professional work.

Subsequently, the organization of the surgeon's office was changed to provide for the assignment of a medical and a surgical consultant, but not for a neuropsychiatric consultant. This resulted in the unsatisfactory situation in which the neuropsychiatrist was on detached service from the South Pacific Base Command and, later, assigned to a replacement depot and placed on detached service with the headquarters. It was not until the latter part of May 1945 that the situation was remedied. At that time, Colonel Kaufman was ordered to the Southwest Pacific because of an agreement between that theater and the Pacific Ocean Area to the effect that priority for assignment of all surplus personnel from the South Pacific was to USAFFE (U.S. Army Forces in the Far East). Despite this very unsatisfactory administrative setup, Colonel Kaufman was not hampered in carrying out the professional aspects of his assignment. This was especially true when Brig. Gen. John M. Willis became Surgeon, Pacific Ocean Area.

A preliminary survey of the Central Pacific Base Command and the forward areas showed a marked shortage in trained psychiatric personnel. There were very few medical officers functioning as psychiatrists in this vast area, who had had adequate professional training. The 147th General Hospital, 1,500 beds, on Oahu, had a chief of section, who was adequately trained, but his two (sometimes three) assistants had minimal psychiatric experience. The facilities in this hospital were limited: they were adequate for the open-ward but not for the closed-ward patients. The closed ward was in the process of construction and consisted of a barracks-type building with six isolation rooms. Occupational therapy was moderately well devel-

oped at the hospital under a trained occupational therapy worker, a civilian from Honolulu. The department worked in close relationship with the psychiatrist, and an extensive professional training program for the ward personnel was conducted under his direction.

Tripler General Hospital, later the 218th General Hospital, had a chief of the neuropsychiatric section with some psychiatric training, whose greatest asset was his strong interest in his patients. The staff varied between three to five psychiatrists. The facilities in this hospital were adequate for open-ward patients. For the treatment of closed-ward patients, there were two semipermanent wooden buildings with a small number of isolation rooms, the whole section being surrounded by a high wire fence. There were no facilities in the ward section for occupational therapy and very limited facilities for recreational activities.

The Red Cross, working in conjunction with the psychiatrist, carried on a moderately effective recreation and handicraft program. The psychiatric section had two enlisted men assigned to it: Pvt. Ira Korner, a graduate psychologist who subsequently was commissioned, and a technician, fifth grade, who was a graduate well-trained psychiatric social worker. These two enlisted men showed tremendous interest and initiative in coordinating a therapeutic program for the psychiatric section. It was possible, here, to set up an excellent group psychotherapy program, which was used as a model for other programs in the area.

The 204th General Hospital, situated in a gulch on the island of Oahu, had a psychiatric section for approximately 200 patients. The buildings for the wards were semipermanent wooden structures that were adequate for open-ward patients. For closed-ward patients, there was one 30-bed building. The situation of the hospital was such that it was not possible to set up adequate outdoor recreational facilities. It had been the policy of the theater surgeon to send to this hospital all patients who were to be "boarded" for the United States; the chief of the neuropsychiatry section and his three assistants did an excellent job in attempting to treat and rehabilitate them. A well-coordinated therapeutic program, which included an excellent handicraft and hobby program, was worked out in this hospital.

The North Sector General Hospital, later the 219th General Hospital, was situated in the Schofield Barracks area. An old permanent brick building housed some of the psychiatric wards, of which the closed ward was unsatisfactory since it looked more like a prison than a hospital. In addition to these buildings, there were a series of semipermanent wooden buildings for the treatment of open-ward cases; one of these was converted later into an adequate closed ward.

The pressure of the caseload was so great that, despite the interest and willingness of the chief of the neuropsychiatry section and his one assistant, the handling of it was primarily on a dispositional level. The 219th General Hospital conducted a moderately effective handicraft and

hobby program in conjunction with the Red Cross. Later, an excellent occupational therapy project was started under the direction of a civilian occupational therapist.

In the forward areas, on Saipan in the Marianas, during the latter part of 1944, the 148th General Hospital functioned under canvas; the psychiatric wards, like all other wards, were under tents. Here, one psychiatrist had been assigned. Within 6 months, the construction of the hospital had advanced greatly. However, the organization of the medical service on this island allowed only for a consultation service. One closed ward was given to the treatment of prisoners.

The 369th Station Hospital, 750 beds, had come to Saipan early in the operation and was finally set up in Quonset hut construction. Plans were drawn up in collaboration with the forward area surgeon for large open wards and also for well-constructed closed wards with adequately well ventilated isolation rooms. Subsequently, these wards were not utilized for psychiatry because of the change in the hospitalization plan.

Two hospitals, the 176th Station Hospital and, later, the 94th Field Hospital, were set up as hospitals for the handling of psychiatric patients. The 176th Station Hospital, designated for the hospitalization of chronic neuropsychiatric cases, had a well-trained neuropsychiatrist in charge. In April 1945, the 94th Field Hospital was in the process of being set up as a treatment center for acute psychiatric cases. This hospital, while still in the Pacific Ocean Area, substituted for five members of its staff five psychiatrists who had had the 3-month course at the School of Military Neuropsychiatry. The hospital did very good work during the Ryukyus Campaign and thereafter.

On the island of Guam, in the Marianas, the psychiatric situation in the fall of 1944 was unsatisfactory. Later, the 204th General Hospital and a station hospital were established there. The 204th General Hospital, 2,000 beds, had very adequate facilities for the care of all types of patients; it was designated as the neuropsychiatric center for the island.

Other hospitals were gradually moved into the Pacific Ocean Area from the continental United States, and the South Pacific Base Command hospitals were reassigned from nonactive areas.

The neuropsychiatric consultant was able to collaborate in the planning of all new construction. The greatest deficiency was the lack of adequately trained psychiatrists. Although the consultant had a free hand in the shifting of personnel, there was a constant shortage of medical officers with psychiatric training upon which to draw. The defect was never remedied.

The emphasis in the Pacific Ocean Area seemed to have been more on the disposition of the patient rather than on any well-thought-out organized therapeutic program. However, there were several notable exceptions to this practice in individual hospitals. Colonel Kaufman traveled about the theater constantly, devoting a good deal of his time to establishing a co-

ordinated therapeutic program and in attempting to indoctrinate medical personnel and command in the psychiatric point of view. His efforts were moderately successful.

It was early recognized that there was a definite need for an educational program. The need was partially met in the Hawaiian Islands by the organization of psychiatric conference groups, which met every 2 weeks at one of the hospitals for the presentation of clinical material, discussion of psychiatric techniques, orientation in therapeutic procedures, clarifications of The Surgeon General's policies, and roundtable conferences. The conference group consisted of medical officers, some nurses, enlisted personnel, the psychologists, and social workers.

As additional educational projects were undertaken, schools were set up for divisional medical officers to orient them in the types of psychiatric problems that they met or were to meet in a division, and to demonstrate therapeutic techniques which could be utilized in combat. Two such programs, one for the 27th Infantry Division and the other for the 81st Infantry Division, were organized. It was possible to assign to the faculty the best-trained and experienced psychiatrists in the theater. Before the Okinawa operation, a school in psychiatry was organized for all medical officers in the various hospitals then staging in Hawaii who were to participate in that campaign. Groups of officers were given an intensive 3-day orientation course.

Late in the fall of 1944, during the planning phase for the Ryukyus Campaign, a psychiatric treatment program was drawn up in the Office of the Surgeon, POA, in collaboration with the Surgeon, Tenth U.S. Army. This program called for active therapy at all echelons from the battalion aid station to the rear field hospital. A mobile psychiatric team participated. To obtain these officers, it was necessary to assign on detached service four well-trained psychiatrists from hospitals in the South Pacific Base Command. In actual operation, this program was moderately effective. The Consultant Psychiatrist, POA, was attached to the Tenth U.S. Army, XXIV Corps, and staged with that corps on Leyte. During the staging period, an intensive briefing of all psychiatrists participating in the operation was carried out.

This type of professional work with tactical units was possible in the Pacific Ocean Area for the reason that the neuropsychiatric consultant was attached to the theater surgeon's office.

Colonel Kaufman was ordered back to Hawaii from Okinawa for reassignment to Sixth U.S. Army, Southwest Pacific Area. In the latter part of May 1945, he left for that assignment.

HAWAIIAN ISLANDS—CENTRAL PACIFIC BASE COMMAND

The Hawaiian Islands, because of their geographic location and climate, served as a staging and training area for units and men fighting in the

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Pacific theater.[3] Emphasis was placed on jungle, amphibious, and combat training.

For most troops, the Hawaiian area was the final psychiatric screening before combat. Many psychiatric casualties were returned from forward areas to the Hawaiian Islands for further treatment while awaiting transportation to the mainland. Because of both the manpower shortage and the shipping shortage, pressure was constantly exerted to utilize every man through reassignment and special training to the fullest extent.

The Hawaiian Islands had not been a combat zone except for the short action during the attack on Pearl Harbor (7 December 1941) and, later, during the Battle of Midway (3–6 June 1942). Thus, the problem of reassignment and utilization of personnel corresponded to that in any rear area, except that combat casualties believed that, if they were no longer able to remain with their organizations, they should have been returned to a job on the mainland. Isolation and homesickness, even without severe physical hardships, were operating to a degree more noticeable than on the mainland.

The psychiatrists in Hawaii functioned in the general and station hospitals. In 1944, a psychiatrist was assigned to the replacement depot at Schofield Barracks, and in the spring of 1945, one was assigned to the prisoner rehabilitation program at Schofield Barracks.

Major Psychiatric Categories

Psychosis.—As would be expected, the usual psychotic reactions, seen in the ordinary peacetime practice of psychiatry, appeared from time to time. Perhaps the two most typical were the slowly developing paranoid schizophrenic reaction and the rather slowly developing simple schizophrenic type of disorder. Occasionally, a recurrent manic depressive psychosis with a past history of a similar disorder would also be seen.

Psychotic reactions in evacuees from forward areas presented a somewhat different picture. Frequently, the history obtained was that of the psychosis developing on shipboard as the soldier was en route to a combat area, or of its appearance after days to weeks of severe combat. There appeared an acute excited state, often of a violent nature, with amnesia (at least partial) for many of the events with some clouding of consciousness and a fluctuating mood reaction, varying from elation and anger to depression and suicidal trends. It was observed from the history that in 2 to 4 weeks, during which time the patient was hospitalized in a forward area and then evacuated to the Hawaiian Islands, the condition began to improve. Not infrequently, after some 2 to 4 more weeks of hospitalization and upon evacuation to the mainland, the patient showed almost a complete

[3] This section was prepared by Dr. Kenneth G. Rew, formerly lieutenant colonel and chief of the neuropsychiatric section at Tripler General Hospital. *See also* chapter XX, pages 744–746.

remission. Sometimes, a mild apathy or confusion of only slight degree remained.

In most of these patients, the past history was often essentially negative. Generally, they were returned from a forward area with a diagnosis of "psychosis, unclassified," which was changed, after transfer to the mainland, to "schizophrenia" because of the disorganization of the personality, of hallucinations, and of delusions, even though it appeared that the course of the illness was different from that seen in the ordinary schizophrenic reaction in civilian life.[4]

Mood disorders of a psychotic nature, particularly depressions, often could be related to some disturbing event in the patient's life—either the loss of buddies in combat or trouble at home, particularly loss of wife or sweetheart. Generally, in all the psychotic reactions, one was impressed with the apparent superficiality of the disorder. This seemed to have been borne out by the good results achieved in the Hawaiian area from almost any type of treatment procedure. Recreation, sedation, exercise, subshock doses of insulin, and electroshock therapy all appeared to influence favorably the course of the psychotic reaction.

Acute and more or less prolonged emotional disturbances appeared in psychopathic personalities who seemed to have exceeded their tolerance to army life and discipline. The emotional state presented principally features of rage, mild confusion, and, not infrequently, suicide attempts. After a few days in the hospital, the condition would generally clear but again appear when the patient was sent back to duty.

A disorder somewhat similar to that just described was noted in occasional Puerto Rican and native Hawaiian soldiers. Symptoms included mute or resistive behavior and frequent convulsivelike body contortions. Occasionally, the forearms would be marked from self-inflicted bites. These episodes resembled severe hysterical seizures. The patients were out of contact for several days, then gradually became cooperative and appeared normal. However, when the patient was frustrated, new attacks occasionally occurred. These disorders were usually diagnosed as psychotic reactions, and evacuation to the mainland was recommended.

Psychoneurosis.—The psychoneurotic disorders presented a much more difficult problem than the psychotic disorders. Psychotic patients were evacuated to the mainland when transportation was made available. How-

[4] A common observation in World War II. Psychiatrists were impressed with the onset and remission of acute psychosis. Indeed, terms such as "military schizophrenia," "3-day schizophrenia," and "30-day schizophrenia" were commonly used. However, followup studies by Ripley and Wolf (Ripley, H. S., and Wolf, S.: Course of Wartime Schizophrenia Compared With Control Group. J. Nerv. & Ment. Dis. 120: 184–195, September–October 1954) indicate no difference in the post-World War II clinical course of the disorder from schizophrenia arising in civilian life. It is evident that military psychiatrists were seeing cases earlier in World War II than previously in civilian life. Currently, in the community mental health center era, it is commonplace to note rapid remissions of acute schizophrenic reactions, much as occurred in World War II. In retrospect, it is evident that the rapid improvement or reconstitution of acute schizophrenic reactions was clearly demonstrated to psychiatrists in World War II and unquestionably had an impact on post-World War II psychiatry.—A. J. G.

ever, diagnosis and disposition of the milder psychoneurotic disturbances could not be so readily managed.

Hospitals reported a constant improvement in the treatment facilities, particularly in occupational and recreational therapy, and an increased amount of time spent with the patients in both individual and group discussions. The discussion techniques appeared more successful with the battle casualty group than with the group admitted from the Hawaiian area. Here, it was noteworthy that, with only occasional exceptions, individuals diagnosed as having a psychoneurosis showed improvement mainly when arrangements were made for their evacuation to the mainland.

Constitutional psychopathic state, mental deficiency, alcoholism.—Constitutional psychopathic state,[5] mental deficiency, and alcoholism were considered the more or less constitutional nonmedical disorders, whose disposition was managed under Section VIII, AR (Army Regulations) 615–360, subsequently AR 615–368 (7 March 1945) and AR 615–369 (20 July 1944). Fundamentally, the problem in the disposition of the individuals with those diagnoses was educating both line and medical officers to realize that these soldiers were constitutionally handicapped. Their separation from the Army under the appropriate administrative regulations was in the best interest of the soldier and the service.

The inability of soldiers with constitutional nonmedical disorders to perform service was recognized by all; however, various reasons for this inability were given. Frequently, officers considered that these individuals failed to perform because of their unwillingness rather than because of the constitutional defect. All attempts were made to obtain a useful day's service from this type of soldier. Additional training, special training, punishment, and hospital treatment were all tried, but usually without success.

When units presented many soldiers for administrative discharge from the Army under pertinent regulations, it was occasionally presumed that their commanding officers had failed to exercise the proper leadership. It was also observed that, frequently, these men were repeatedly admitted to the hospital because of inadequate duty performance, and administrative disposition had not been initiated or accomplished.

[5] Many psychiatrists, in World War II, assumed that constitutional psychopathic state indicated congenital or genetically determined mental conditions. Later during World War II, this terminology was discarded in favor of the categories "pathological personalities" and "immaturity reactions," as appropriate.—A. J. G.

[6] The 8 September memorandum stressed "legal responsibility or irresponsibility" as the deciding factor for determination of CDD [Certificate of Disability for Discharge] or "section VIII" disposition. One commanding officer who replied before issuance of the 6 October letter apparently realized the problems the earlier memorandum would produce and asked that the nonmedical organizations cooperate and dispose of individuals recommended for administrative disposition. The 6 October letter, however, gave a much better interpretation of the more proper procedure. Letters from the commanding officers of Tripler General Hospital and the 204th General Hospital and from the acting commanding officer of the 147th General Hospital all expressed satisfaction with these procedures but requested that some sort of limited assignment be authorized for those men who could not be restored to full military duty. One commanding officer requested that psychiatric cases be segregated in specific hospitals, dividing these patients into two groups—those that could be restored to some form of limited or even full duty and those that should be returned to the mainland for separation from the service.

The Surgeon, Headquarters, USAFCPA (U.S. Army Forces, Central Pacific Area) on 8 September 1943, sent a memorandum to the commanding officers of the hospitals in this area, on the disposition of patients having certain types of mental disorders. In this memorandum, he emphasized that a problem of disposition of patients existed and asked hospital commanders to furnish him their opinions. On 6 October 1943, the memorandum was followed up with a letter on the same subject.[6] With this letter, however, was a mimeographed form, "Certificate of Mental and Physical Examination," [7] which could be completed by the psychiatrist and would be returned to the organization commander for action under the appropriate Army regulations.

On 7 January 1944, the Office of the Commanding General, Headquarters, USAFPA, issued instructions that emphasis be placed on full utilization of manpower as laid down in the War Department directive of 11 November 1943.[8]

On 4 March 1944, a provisional training unit was established.[9] The purpose of this unit was to give additional special training to mentally handicapped soldiers and to attempt the rehabilitation of certain individuals of the appropriate type who might otherwise come under the administrative separation.[10]

On 18 October 1944, another letter on utilization of manpower was distributed. By authority of this letter, a board of officers was appointed to review the physical qualifications of each man who was not able to perform a useful day's work.

On 13 March 1945, a new War Department policy on administrative and medical disposition of noneffective personnel was issued.[11] This materially assisted in clarifying the policy of the Medical Department and of line officers in dealing with the situation.

On 30 March 1945, Headquarters, CPBC (Central Pacific Base Command), issued an order which further implemented the disposition of noneffective personnel, and made it mandatory for a commanding officer either to initiate action for the disposition of a noneffective soldier under the appropriate regulation or to state his reasons to the commanding general why such action was not taken.[12] The form for such a recommendation was accomplished by the psychiatrist and included provisions, on the

[7] This certificate was similar to those developed on many posts to communicate with the unit commanders who recommended administrative discharge. It was a form certificate with blank spaces to fill in and certain words that could be crossed out. It reported whether or not (1) the soldier was inapt, or showed undesirable habits and traits of character, (2) misconduct was a factor, (3) rehabilitation was possible, and (4) he was legally responsible; proceedings under Section VIII, AR 615–360, were then recommended. A diagnosis had to be included.

[8] WD Circular No. 293, Utilization of Manpower Based on Physical Capacity, 11 Nov. 1943.

[9] Letter, Theater Surgeon, Headquarters, USAFCPA, to Commanding Officer, Tripler General Hospital, 4 Mar. 1944, subject: Provisional Training Unit.

[10] Provisions of Section VIII, AR 615–360.

[11] WD Circular No. 81, 13 Mar. 1945.

[12] Administrative Order No. 1, Processing of Enlisted Men Eligible for Separation From the Service Under the Provisions of AR 615–368 and AR 615–369, Headquarters, CPBC, 30 Mar. 1945.

reverse side, for a summary of the patient's mental and physical state and the reasons for the recommended action.

Training

The training of personnel, especially medical and line officers, in the problems of adjustment was emphasized. Letters, training memorandums, and training bulletins were issued.[13] War Department Technical Bulletins (TB MED's) 12 and 21, 22 February 1944 and 15 March 1944, respectively, were used as a basis for instruction, and every hospital included psychiatry in the training of its corpsmen.

An order of 26 January 1945, from Headquarters, SPBC, established a school of military neuropsychiatry under the direction of Colonel Kaufman, to prepare further for the coming invasion of the Ryukyu Islands. The first class received an intensive 3-day course at Tripler General Hospital. Colonel Kaufman and some of his assistants were able to stress psychiatric problems that would be encountered in combat and forward areas. The training schedule included lectures on subjects such as psychopathology; psychotic mechanisms; factors in the production of neuropsychiatric disorders in combat; mental deficiency; epileptic and psychopathic states; head, spine, and nerve injuries; Pentothal Sodium (thiopental sodium) narcosynthesis; psychosomatic disorders; and field psychiatric services.

[13] (1) Letter, Surgeon, Headquarters, USAFCPA, to all Medical Officers, this area, 4 Oct. 1943, subject: Recommendations as to Disposition and Treatment of Psychoneuroses in the Central Pacific Non-Combatant Area. (2) Letter, Surgeon, Headquarters, USAFCPA, to All Hospitals on Oahu, 21 Oct. 1945, subject: Instructions for the Treatment of Psychoneuroses. (3) Training Memorandum No. 73, Headquarters, USAFCPA, 24 Sept. 1943, subject: Disposition and Treatment of Psychoneurosis in Combat. (4) Medical Bulletin No. 17, APO No. 38, 3 May 1944, subject: Routine Psychiatric Treatment by Medical Officers in a Division (Capt. Jules V. Coleman, MC, Division Psychiatrist).

CHAPTER XVI

Western Pacific Base Command

William Rottersman, M.D., and *William Peltz, M.D.*

GENERAL BACKGROUND

The WPBC (Western Pacific Base Command) was established by General Orders No. 43, Headquarters, USAFPOA (U.S. Army Forces, Pacific Ocean Areas), dated 14 April 1945. The islands where Army hospital facilities existed before or after the establishment of the Western Pacific Base Command were Saipan, Guam, Tinian, Angaur, and Iwo Jima.

All islands comprising the Western Pacific Base Command were invaded and secured before this command was established. Consequently, during the period of the Saipan, Tinian, and Guam invasions, neuropsychiatric casualties were evacuated to medical installations in other areas from aid stations of the combat organizations involved. However, during the invasion of the Palau Islands, Ulithi, and Iwo Jima, casualties were evacuated to medical installations on islands in the area which subsequently became the Western Pacific Base Command.

ARRIVAL OF PATIENTS

Most neuropsychiatric patients arriving in the Western Pacific Base Command came by sea. Some, however, did come by air. But whether by sea or air, triage of patients was first done at the docks or the airfields; the patients were then sent to the appropriate hospitals. At the receiving offices of each hospital, triage was again done for admission to appropriate wards, neuropsychiatric patients being handled in the same manner as other patients. During the Okinawa operation, neuropsychiatric casualties, arriving on Saipan, were all sent to the 176th Station Hospital where, after triage, they either remained at that hospital or were sent to the 94th Field Hospital. The chief of the neuropsychiatric section at the 176th Station Hospital acted as hospital triaging officer for neuropsychiatric cases.

On the day following the arrival of the patients, the hospitals reported them to the Island Command surgeon according to the following classifications for Army, Navy, Marine Corps, merchant marine, and other, and by officer and enlisted status: 1a, strict mental; 1b, security mental; 1c, open mental; 2, litter; 3, ambulatory who need constant care and treatment; and 4, ambulatory whose needs for care and treatment are limited.

Problems of Diagnosis

One of the main problems encountered in neuropsychiatric cases was that of diagnosis in relation to constantly changing AR's (Army Regulations). For example, the handling of cases of "constitutional psychopathic states" was considerably changed by the introduction of AR 615–368 and AR 615–369 (p. 590). While previously such patients were frequently evacuated by hospitals to the United States, they now had to be returned to duty for administrative separation from the service with either a "white" (honorable) or "blue" (without honor) discharge.

During military operations, it was difficult for combat organizations to take time for such administrative procedures. The 23d Replacement Depot, on Saipan, was cooperative in trying to handle such problems, but hospitals sometimes found it easier, especially when extremely busy during active campaigns, to evacuate patients with such diagnosis as "anxiety state, severe in a constitutionally inadequate individual" rather than that the patient be separated from the service under AR 615–369 with the diagnosis "constitutional psychopathic state, inadequate personality, associated with anxiety symptoms."

The substitution of the term "psychoneurosis," with such categories as "anxiety state" and "hysterical state," further elaborated with the addition of chronicity, severity, predisposition, premorbid tendencies, and degrees of incapacity, was considered by most of the chiefs of neuropsychiatric sections as a definite improvement in diagnostic nomenclature. Some expressed the opinion that the "stigma" of neuropsychiatric diagnosis could still further be reduced by official use in hospitals of the diagnosis "combat fatigue," "operational fatigue," or "flying fatigue."

Another problem of diagnosis related to "blast concussion." This diagnosis was made in forward areas on a large number of patients who were evacuated to hospitals in the Western Pacific Base Command. It was true that some of these patients did have true blast concussion signs and symptoms, such as ruptured eardrums, bleeding from the ears, coughing or spitting of blood, and passage of blood by rectum, but the vast majority were anxiety states, acute, severe, with or without hysterical manifestations. In the opinion of several chiefs of neuropsychiatric sections, the diagnosis "blast concussion," seen most frequently in Marine Corps patients, was used either in an effort to keep down the apparent incidence of neuropsychiatric casualties in the particular organization or to shield the patient from the "stigma" of a neuropsychiatric diagnosis.

Problems of Patients Not From Combat Areas

Although most patients were from combat areas, WPBC psychiatrists also had to concern themselves with neuropsychiatric cases from the various

garrison and other forces, each of which presented a separate problem. A short summary of the different categories follows.

Army garrison forces.—The Army garrison troops presented the same psychiatric problems that had previously been demonstrated in the Zone of Interior, except that acute anxiety states were more frequent. These were usually precipitated by air raids or by the imminent exposure to combat or hazardous conditions.

Army Air Forces.—The presence of five B–29 wings in the Marianas, together with fighter, sea-air rescue, transportation, and other units, considerably increased the number of personnel served by Army hospitals. The extreme length of the flights, chiefly over water, contributed greatly to the strain suffered by the crews. During the first months of B–29 operations, before the securing of Iwo Jima, the absence of intermediary landings, the frequent takeoff and landing accidents, and the "ditching" of planes because of lack of fuel increased the hazard and heightened the anxiety under which the flight crews normally worked. In addition, during operations in 1944, the airfields on Saipan and Tinian were frequent targets for Japanese air raids.

Navy and Marine Corps.—On Saipan, Tinian, Iwo Jima, and Angaur, Navy and Marine Corps personnel were chiefly cared for by Army hospitals during the period that the Western Pacific Base Command functioned. The presence of a Marine Corps division on Saipan considerably increased the patient load of Army medical treatment installations. The occasional visit of a battle fleet to Saipan was usually attended by the discharge of a considerable number of neuropsychiatric patients to Army hospitals. Very few merchant marine personnel were treated as neuropsychiatric patients.

Prisoners of war, enemy civilians, and natives.—No statistics are available on the incidence of neuropsychiatric disorders among, and their subsequent treatment in, prisoners of war, enemy civilians, and natives. Cases among these groups were extremely rare.

DISPOSITION

Discharge

Upon discharge from an Army hospital, the methods of recommending and effecting assignment to full or noncombat duty varied according to whether the patient was in the Army, Navy, or Marine Corps.

Army patients discharged to full or noncombat duty were profiled in accordance with the status desired and were sent to the 23d Replacement Depot. According to Lt. Col. Warren T. Brown, MC, the consultant in neuropsychiatry for the Western Pacific Base Command, who was in frequent touch with the depot surgeon and personnel officer, the depot made a sincere effort to assign the men to types of work suitable to their medical condi-

tions. As noted under the section on the 23d Replacement Depot, however, the Tenth U.S. Army became surfeited with psychoneurotics and, finally, its G–1 (personnel) requested that no more be assigned to that Army (p. 615).

Marine Corps or Navy patients discharged to full duty were sent from the hospital concerned to a Marine Corps casual camp or to a Navy receiving ship, respectively. Since neither the Navy nor the Marine Corps used a profile system,[1] the problem of returning recovered Marine Corps and Navy patients to noncombat type of duty was much greater than in the case of Army patients. Medical officers could only enter their recommendations on the hospital records and hope that, when the patient was transferred, discharged, or evacuated, the personnel officer in charge of reassignment would note the recommendations made on the Army hospital medical history. There was no way of knowing whether marines who were recommended for noncombat duty were actually assigned to combat duty, noncombat duty in tactical organizations, noncombat duty in nontactical organizations, or evacuated to the United States.

Likewise, it was difficult to discover if recommendations for reassignment to shore duty for Navy personnel were observed.

Evacuation

Except during campaigns when the patient load was extremely heavy, neuropsychiatric patients from the Western Pacific Base Command were evacuated by air to Hawaii or the United States.

Air evacuation was much quicker and was, therefore, much more satisfactory from Guam, especially during the last 3 months of the war, than it was from Saipan and Tinian. Long delays between shipments at the last two islands would occur with the result that the care of neuropsychiatric patients awaiting evacuation became a considerable problem.

In compliance with a memorandum of 29 December 1944 from Headquarters, Island Command, Saipan, monthly report of evacuation was submitted by each hospital on Saipan to the Island Command surgeon. This report gave information for each month on the disposition of patients with a breakdown of Army, Navy, and Marine Corps patients by officer and enlisted status and by those who returned to duty, died, were evacuated to Oahu or the mainland, or were transferred to other hospitals. Inasmuch as there was no breakdown according to neuropsychiatric status, the statistical data were of value from a neuropsychiatric standpoint only for the 94th Field Hospital (pp. 603–606), where virtually all the patients were neuropsychiatric.

The air evacuation officer for the Western Pacific Base Command and the consultant in neuropsychiatry for the area conferred frequently regard-

[1] In the Army, the Physical Profile Serial (PULHES) method (22 May 1944, revised 30 June 1945) was used for physically classifying individuals according to functional capacities.

ing the air evacuation of neuropsychiatric patients. Closed-ward patients were sedated, usually with Sodium Amytal (amobarbital sodium), and were restrained on litters with web straps. Fluids were forced inasmuch as, in the early days of air evacuation, a considerable number of sedated patients arrived in the United States in a state of dehydration. On the ordinary plane used for air evacuation, one nurse and one attendant were present. It was finally arranged that, when psychotic patients were being evacuated, one attendant would be available for every three patients. According to the air evacuation officer, on Saipan, closed-ward psychiatric patients were given high priority on evacuation lists.

PERSONNEL

Promotions

As personnel problems affect the functioning of any installation, medical or otherwise, they must be mentioned here. It should have been readily apparent, but appeared to be frequently overlooked, that psychiatrists responded to the favorable and unfavorable aspects of military service as did other members of the Armed Forces. Although their training and understanding acted as a gyroscope to help steady them, they were not altogether resistant to adverse reactions when subjected to unfavorable circumstances. Many of the officers doing psychiatry within the Western Pacific Base Command believed that, because of the official regulations of the Surgeon General's Office and the prejudices of superior officers, promotions among psychiatrists were slower or absent as compared with other medical officers, especially when training, responsibility, and time in grade were considered.

Assignment

A shortage of medical officers trained in neuropsychiatry existed in this area, as in others. Despite this, qualified neuropsychiatrists served as executive officers at the 232d and the 204th General Hospitals. Also, the assistant chief of the neuropsychiatric section and one of the neuropsychiatric ward officers of the 39th General Hospital were assigned as ward officers on the surgical service of that hospital during the Okinawa campaign. It was true that a shortage of surgeons existed, but two nonpsychiatrically trained medical officers at the 94th Field Hospital might have worked on the surgical wards of the 39th General Hospital and the two psychiatrists referred to could have been released to work at the 94th Field Hospital.[2]

[2] Personal observation.—W. R.

Consultant in Neuropsychiatry

Before the organization of the Western Pacific Base Command, Lt. Col. (later Col.) M. Ralph Kaufman, MC, consultant in neuropsychiatry for the Pacific Ocean Area, visited the islands in the area several times: The first, during November 1944; a second, en route to Leyte, about February 1945; a third, en route to Okinawa in April 1945; and a fourth, from 4 to 6 May 1945 when he returned from the Okinawa front. He was responsible for the 94th Field Hospital being established as a neuropsychiatric hospital; also, for the introduction and use of hypnosis on a considerable scale at that installation.

Colonel Brown, from 28 April 1945, when he became Consultant in Neuropsychiatry, WPBC, until the end of the war, visited all functioning Army medical installations in the command with the exception of those on Iwo Jima.

CONTEMPLATED PLANS ABANDONED

Plans for the development of a 1,000-bed neuropsychiatric center on Saipan and a 1,000-bed neuropsychiatric center on Tinian were being considered when the war ended.

The proposed plan involved the conversion of the 101st Naval Construction Battalion camp on Saipan into a hospital for neuropsychiatric patients, to be staffed and operated by the 39th General Hospital (subsequent to its becoming a 2,000-bed hospital, on 5 June 1945).

On Tinian, it was proposed to use the area in which the 303d General Hospital was located in August 1945. The professional staffing of the proposed 1,000-bed hospital was to include personnel from the five nonfunctioning general hospitals on Tinian.

HOSPITAL FACILITIES

Army hospital facilities on Saipan, Guam, Tinian, Iwo Jima, and Angaur, since the activation of the Western Pacific Base Command, will be discussed with reference to their work in neuropsychiatry, including open, closed, and prison wards and outpatient facilities; and type of services performed.

Saipan

148th General Hospital.—The 148th General Hospital arrived on Saipan from Oahu on 10 August 1944, and began admitting patients on 15 August 1944. At first, it operated as a 1,000-bed general hospital, but was increased to a 2,000-bed general hospital by General Orders No. 28, 21 March 1945,

Headquarters, Island Command, Saipan. Its functional capacity climbed to 2,600 beds. From 15 August 1944 to 31 August 1945, inclusive, the hospital admitted 18,013 patients.

For the first 6 months of its existence on Saipan, the neuropsychiatric section of the hospital operated in tents, with a capacity of 56 beds. Another tent with 12 beds was used as a closed ward which did not differ from the others except that it was enclosed in a low fence of chicken wire. The neuropsychiatric section was later housed in prefabricated wooden wards with a total bed capacity of 186.

In a letter of 3 April 1945, Col. Elliott B. Colby, MC, Surgeon, Headquarters, Island Command, Saipan, directed that garrison force prisoners be hospitalized in the 148th General Hospital. At the same time, by verbal orders, the 148th General Hospital neuropsychiatrist was assigned all garrison force medicolegal work.

The neuropsychiatric section of the 148th General Hospital received casualties from Angaur, Leyte, Iwo Jima, and Okinawa; also Allied prisoners of war picked up by a U.S. submarine after the sinking of a Japanese troop transport in September 1944.

The outpatient neuropsychiatric clinic handled Army, Navy, Marine Corps, or merchant marine patients from designated areas of the island or harbor. Outpatients, unless an emergency existed, were seen on Mondays and Fridays.

Because the hospital received many medical and surgical cases, the intrahospital consultation service was exceptionally heavy. Patients (except emergencies, interhospital transfers, and evacuees) had to be seen by a neuropsychiatrist and accepted before being admitted to the neuropsychiatric section. This was also true of intrahospital transfers.

On admission, all patients were given a psychiatric examination, consisting of present history, past history, and mental status. All had routine physical examinations, blood Kahn, complete blood count, and urinalysis. The clinical psychologist administered the Kent Emergency Test, the Stanford-Binet Test, the Wechsler-Bellevue Test, and the Shipley Hartford-Retreat Test, where indicated.

Patients were generally disposed of by returning them to duty; by transfer to the 5th Convalescent Hospital, to the 176th Station Hospital, or to the 94th Field Hospital; and by evacuation to either Oahu or the mainland.

Therapy consisted chiefly of individual psychotherapy, superficial suggestion and analysis, narcosynthesis (Sodium Amytal or Sodium Pentothal (thiopental sodium)), and various forms of sedative drug therapy. A small fenced-in area offered a few opportunities for recreational therapy.

The personnel consisted of Maj. Aubrey L. Huskey, MC, assisted for

varying periods of time by psychiatrists on detached service or special duty and by general medical officers. Lt. Francis M. Moriarty, MAC (Medical Administrative Corps), was the psychologist.

39th General Hospital.—The 39th General Hospital arrived on Saipan on 27 January 1945, after having spent 26 months in New Zealand, and officially opened to receive patients on 27 April 1945. It served as a 1,000-bed general hospital with a functioning capacity of 1,300 beds.

During the interval between 27 January and 27 April 1945, most of the medical officer personnel of the hospital were on temporary duty or detached service with other hospital installations or field units on the island. The chief of the neuropsychiatric section of the 39th General Hospital was placed on temporary duty at the 148th General Hospital from 15 February to 20 March 1945 and assisted on the neuropsychiatric section.

When the 39th General Hospital opened, it was organized as a surgical hospital with all professional personnel under the direct control of the surgical service.[3] This plan was adopted for the Okinawa campaign; most of the casualties admitted to the 39th General Hospital were surgical.

For a part of the period that this policy was in force, the chief of the neuropsychiatric section functioned as administrative chief of the orthopedic section and the neuropsychiatric assistants, as surgical ward officers.

During the first 3 or 4 weeks of the hospital's operation, two 42-bed open wards were assigned to the neuropsychiatric section and 37 neuropsychiatric patients were admitted thereon. With the increasing load of surgical admissions and the decrease of neuropsychiatric admissions, the neuropsychiatric wards were absorbed by the general medical section and thereafter no wards, either open or closed, were assigned to the neuropsychiatric section so long as the hospital remained in operation.

Neuropsychiatric consultations during the entire period of functioning of the hospital were performed either by the chief of the neuropsychiatric section or by his assistants. Neuropsychiatric patients who could not be cared for or disposed of in the 39th General Hospital were transferred either to the 176th Station Hospital or to the 94th Field Hospital.

On 1 July 1945, the temporary consolidation of the two clinical services which had been effected as an emergency measure was terminated,[4] and the separate identities of the medical and surgical services were reestablished.

On 5 June 1945, the 39th General Hospital was designated as a 2,000-bed hospital;[5] additionally, an assistant chief of the neuropsychiatric section was designated.

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[3] Memorandum No. 5, Headquarters, 39th General Hospital, 25 Apr. 1945, subject: Plan for the Operation of the Clinical Service.

[4] Daily Bulletin No. 120, 39th General Hospital, 2 July 1945.

[5] General Orders No. 18, Headquarters, WPBC, APO 244, 30 May 1945.

A neuropsychiatric outpatient consultation clinic at the 39th General Hospital for other installations on Saipan was established on 8 July 1945, to be held on one afternoon a week.[6] However, no patients were seen between that date and 1 September 1945.

On 28 April 1945, as already stated, Colonel Brown, the chief of the neuropsychiatric section, 39th General Hospital, became the consultant in neuropsychiatry for the Western Pacific Base Command, and on 5 September 1945, he was assigned on detached service as commanding officer of the 369th Station Hospital.[7]

On 7 May 1945, 2d Lt. Ira Korner, AGD, was assigned to the 39th General Hospital as clinical psychologist. From 14 May through 1 September 1945, he was on detached service at the 94th Field Hospital.

369th Station Hospital.—The advance echelon of the 369th Station Hospital arrived on Saipan on 25 June 1944 from Oahu, and on 27 June 1944, was assigned to the 38th Field Hospital on Saipan for duty. However, on 11 July 1944, the 369th Station Hospital opened to receive patients, with an authorized bed capacity of 750 beds and a functional bed capacity of 250. During the Iwo Jima operations in March 1945, the hospital's capacity was expanded to its highest peak—1,342. When the hospital opened, neuropsychiatric cases were cared for on general medical wards. In September 1944, when the hospital was still functioning under tentage, one tent was assigned to the neuropsychiatric section. In October 1944, when patients from the Leyte Campaign (17 October 1944–1 July 1945) were arriving at the hospital, a building was designated as the neuropsychiatric ward.

By January 1945, a locked-ward type of Quonset hut with 23 beds, including five isolation rooms, was assigned to the section. For a time during the Iwo Jima campaign, an open Quonset hut of 50 beds was assigned in addition.

Neuropsychiatric treatment consisted of diagnostic workup and therapeutic interviews on the conscious level. Narcosynthesis (Sodium Amytal or Sodium Pentothal) was used in about 15 cases without striking results, according to Capt. Joseph H. Schultze, MC, chief of the neuropsychiatric section. Patient recreational facilities were limited almost entirely to those offered by the Red Cross. A neuropsychiatric outpatient clinic was held two half days a week.

176th Station Hospital.—The 176th Station Hospital arrived on Saipan on 21 September 1944. Its neuropsychiatrist was placed on special duty at the 148th General Hospital until 1 November 1944, at which time the 176th Station Hospital opened as a 500-bed unit, housed temporarily in the expansion space of the 148th General Hospital. The neuropsychiatric

[6] Medical Service Memorandum No. 4, 39th General Hospital, 8 July 1945.

[7] Special Orders No. 11, Headquarters, Army Garrison Force, Island Command, Saipan, 7 Sept. 1945.

section consisted of one prefabricated building with a capacity of 36 beds. The unit ceased functioning in its temporary quarters on 2 December 1944, and resumed operations in its own newly built area on 9 January 1945. In the new area, the neuropsychiatric section had one Quonset hut, a locked-ward type with a capacity of 32 beds. On 3 April 1945, the 176th Station Hospital was designated as garrison hospital for Saipan and neuropsychiatric center for both island forces and evacuees.

The neuropsychiatric section received casualties from the Peleliu, Leyte, Iwo Jima, and Okinawa campaigns, its physical size changing according to the patient load. At one time during the Iwo Jima campaign, it consisted of two locked wards with a capacity of 78 beds, 75 beds under tentage, and 40 beds on different medical wards. During the greater part of the Okinawa campaign, all neuropsychiatric casualties were taken from ships to the admission and disposition office of the hospital where they were screened by the neuropsychiatrist and his assistants. Those requiring locked-ward or semi-locked-ward care were retained at the 176th Station Hospital, but on several occasions, the large number of locked-ward cases required the partial utilization of the locked wards of the 369th Station Hospital and the 148th General Hospital. Milder neuropsychiatric cases were distributed between the 176th Station Hospital and the 94th Field Hospital.

According to hospital records, 946 neuropsychiatric cases were cared for between 1 November 1944 and 31 August 1945, inclusive. However, approximately 100 casualties received in the course of the Iwo Jima campaign were admitted with a diagnosis of "cerebral concussion," and were evacuated with the same diagnosis. The requirements of rapid evacuation did not permit an adequate examination to disprove the diagnosis. Experience with other battle casualties labeled "cerebral concussion" indicated that all but a very few were "battle fatigue," "combat neurosis," and so forth. However, those cases evacuated as "cerebral concussion" were statistically listed as battle casualties and not neuropsychiatric cases. From 1 November 1944 to 31 August 1945, inclusive, the hospital cared for a total of 7,665 patients.

The outpatient neuropsychiatric clinic functioned for Army, Navy, or Marine Corps patients from designated areas of the island. During June 1945, the neuropsychiatric outpatient clinic handled all Army garrison forces on the island. Unless an emergency existed, patients were seen on Tuesdays and Fridays. During June and July 1945, two psychiatrists of the 94th Field Hospital assisted in the outpatient clinic.

A breakdown, by diagnosis, of all outpatient neuropsychiatric cases handled between 1 November 1944 and 31 August 1945 follows.

Diagnosis	*Number of cases*
Psychoneuroses	255
Psychopathic personality	46
Psychoses	34
Simple adult maladjustment	12
Mental deficiency	7
Neurological	111
No disease	200
Undiagnosed	24
Total	689

Disposition of patients was chiefly by return to duty; by transfer to the 5th Convalescent Hospital or, on rare occasions, to a local general hospital (the reverse was more often true); and by evacuation to Oahu or the mainland. During the Iwo Jima campaign, certain Marine Corps patients were evacuated to Tinian or Guam.

Group psychotherapy was reserved for the combat neuroses patients. They, as well as all others, were given individual psychotherapy, consisting of superficial suggestion and analysis. Narcosynthesis (Sodium Amytal or Sodium Pentothal) and hypnotherapy were also used. Subshock doses of insulin were given to patients with marked repressive or withdrawal features and those with very poor appetites. Hyoscine, scopolamine, and Sodium Amytal were drugs chosen for sedation. Amphetamine was occasionally used for nonagitated depression; other drugs were also used symptomatically.

During the period covered in this chapter (14 April–31 August 1945), 95 psychotic patients were admitted to the neuropsychiatric section. The only untoward occurrence was the death of a known suicidal patient who escaped and shot himself with a carbine.

In February 1945, the island surgeon requested that an outline for the utilization of the 176th Station Hospital as a neuropsychiatric center be submitted. A "Proposed Outline for Psychiatric Center" was drawn up and submitted by Capt. William Rottersman, MC, but no action was taken. In March 1945, at the request of the commanding officer of the hospital, a reconditioning program for the hospital was submitted by Captain Rottersman. This was conveniently pigeonholed and no action taken despite frequent appeals by the psychiatric staff that it be at least partially put in operation.

94th Field Hospital.—The 94th Field Hospital, activated in October 1944, was organized as a surgical field hospital. Because neuropsychiatric services were needed in the Western Pacific Base Command for the Okinawa campaign, Colonel Kaufman requested such facilities. Accordingly on 2 March 1945, at the port of embarkation, five neuropsychiatrists—1st Lt. (later Capt.) Milton S. Fenmore, MC, 1st Lt. (later Capt.) William H. Fries, MC, 1st Lt. (later Capt.) John D. Gaydos, MC, 1st Lt. (later Capt.)

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John R. Higgins, MC, and 1st Lt. (later Capt.) Fred D. Kartchner, MC, trained at the Army School of Military Neuropsychiatry, Mason General Hospital, Brentwood, Long Island, N.Y.—joined the field hospital.

The 94th Field Hospital arrived on Saipan on 31 March 1945, and opened for operation on 19 April 1945. The hospital had an authorized bed capacity of 400. Its functional capacity was 576, consisting of 32 open Quonset wards with 18 beds per ward.

Most of the patients admitted to the hospital, from the date of its opening through 1 September 1945, consisted of neuropsychiatric cases. During the first 2 months of operation, of 1,378 patients admitted, 913, or 66 percent, had a neuropsychiatric diagnosis. The shortage of beds for medical patients and the necessity for their being admitted to whatever hospital had accommodations for them accounted for 34 percent admission of nonpsychiatric cases. After 1 June 1945, however, of 840 patients admitted, 756, or 90 percent, had neuropsychiatric diagnoses on admission.

On 6 April 1945, one of the five psychiatrists, Lieutenant Gaydos, was placed on temporary duty at the 176th Station Hospital and remained there through 1 September 1945. This left only four psychiatrists to handle the burden of the work. Two medical officers of the staff who were not psychiatrically trained helped care for the neuropsychiatric patients.

On 11 May 1945, Lieutenant Korner, of the 39th General Hospital, was assigned on temporary duty to the 94th Field Hospital, serving as clinical psychologist, information and education officer, and director of the patient work and recreation programs.

From time to time, other neuropsychiatric officers were assigned to work at the hospital or to observe on detached service or temporary duty. For example, the chief and the assistant chief of the neuropsychiatric section, 39th General Hospital, were assigned on detached service, and the chiefs of the neuropsychiatric sections of the 303d, 304th, 308th, 309th, and 310th General Hospitals visited the 39th General Hospital while on temporary duty from Tinian.

To instruct the nurses who had previously had no neuropsychiatric experience in the fundamentals of caring for psychiatric patients, eight lectures and discussions were conducted by the trained members of the medical staff. These talks were held twice weekly, from 13 July to 6 August 1945.

On 4 August 1945, a neuropsychiatric outpatient clinic was established at the 94th Field Hospital, and the hospital was designated as the "neuropsychiatric center for APO 244." [8] Until that date, the members of the staff had been assisting at the neuropsychiatric outpatient clinic, held twice a week at the adjoining 176th Station Hospital.

All neuropsychiatric patients admitted to the 94th Field Hospital

[8] Information Bulletin No. 15, Headquarters, 1109th Pacific Ocean Areas, Provisional Army Garrison Force, 4 Aug. 1945.

were screened and a diagnosis made. Those who could not be returned to duty within 60 days or those who were unfit for further military service were evacuated.[9]

About one-third of the patients admitted during these early operations had medical or minor surgical problems. They were admitted on separate wards even though some had superimposed neuropsychiatric symptoms. Many of these required much of the ward officer's time. Their partial or complete adjustment to the combat situation was a major contribution of this hospital.

In the evaluation of the neuropsychiatric case, an adequate and detailed history was found to be enlightening, and various factors were considered, including—

1. The total personality of the patient at induction.
2. The stress placed upon that personality by military service.
3. The performance of that personality under stress.
4. The acute precipitating situation.
5. The contributing physical illness or tropical disease.
6. The response to treatment.

Treatment methods included group psychotherapy, individual psychotherapy, hypnosis with and without drugs, and activity and recreational programs. The use of hypnosis without drugs was preferred because of fewer side reactions and demands upon limited attendant personnel. The activity program (reconditioning) [10] was supervised by a clinical psychologist and included athletics, crafts, and swimming. The recreation program included Red Cross activities, movies, USO (United Service Organizations) shows, forums, and other recreational activities.

"Working wards" were used for patients who required further convalescence only. These patients were in uniform and led a barracks life. They performed useful details about the hospital and were granted certain extra privileges.

Psychological consultations were conducted by the clinical psychologist. These, together with the activity and recreation programs, occupied his full time and that of an enlisted assistant.

The following is a comparison of the admitting and final diagnoses for the 913 casualties admitted with neuropsychiatric diagnoses, from 19 April to 19 June 1945:

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[9] Letter, Maj. W. L. Noe, Jr., MC, Chief, Medical Service, 94th Field Hospital, to Surgeon, Western Pacific Base Command, 1 July 1945, subject: The Management of Neuropsychiatric Casualties Recently Evacuated From Combat.

[10] Letter, Maj. W. L. Noe, Jr., MC, Chief, Medical Service, 94th Field Hospital, to Surgeon, Western Pacific Base Command, 23 June 1945, subject: Organization of Reconditioning Activities.

Diagnosis	*Number of cases*	
	Admitting	*Final*
Anxiety state	609	581
Psychoneurosis	140	---
Mixed type	29	52
Reactive depression	12	20
Hysteria	7	7
Concussion, blast	81	47
Epilepsy	4	9
Psychopathic personality	5	6
Psychosis	7	14
Other	19	14
Remaining in hospital	---	133
No neuropsychiatric disease found	---	30
Total	913	913

Dispositions were made in 780 of these 913 cases by 1 July 1945. The neuropsychiatric admitting diagnosis was not confirmed in 30 of the 780 cases. The remaining 750 cases were composed of 322 Army personnel and 428 Navy personnel. Of the Navy personnel, 139, or 32 percent, were returned to duty. Of the Army personnel, 149, or 46 percent, were returned to duty. Almost all Army personnel returned to duty were returned to noncombat status. The percentage of Army personnel returned to duty was lower than that reported elsewhere. This was attributed to several factors, including length of time in combat, severity of combat, and increased severity of psychiatric symptoms.[11]

From the brief experience of the 94th Field Hospital, it was apparent that—

1. Young and enthusiastic medical officers are highly desirable for this type of psychiatry.
2. Training in civilian life or in the Army School of Military Neuropsychiatry was a definite advantage.
3. The young, less experienced officers required guidance and sympathetic understanding by older medical officers and consultants.
4. The rigid viewpoint acquired by State hospital and institutionally trained psychiatrists was not desirable.
5. Specialized hospitals or special psychiatric teams would be a practical solution when psychiatric casualties are high.
6. One psychiatrist had difficulty in caring for more than 30 acute combat cases.
7. Various forms of early psychotherapy enabled more patients to return to duty.
8. Salvage for combat duty of neuropsychiatric casualties at any point closer to the Zone of Interior was not possible.[12]

[11] Letter, Maj. W. L. Noe, Jr., MC, Chief, Medical Service, 94th Field Hospital, to Commanding Officer, 94th Field Hospital, 1 July 1945, subject: Neuropsychiatric Admissions and Dispositions.

[12] See footnote 10, p. 605.

5th Convalescent Hospital.—The 5th Convalescent Hospital arrived on Saipan on 30 March 1945, from New Caledonia, and opened for operation on 12 April 1945, with an authorized bed capacity of 3,000. Its functional capacity was approximately 1,200, the highest patient load being 1,238 on 30 May 1945. Accommodations consisted of ward tents. There was no neuropsychiatric section as such, psychiatric patients being scattered throughout the hospital. Shortly after the hospital opened, a few psychiatric patients were admitted directly from ships, but the usual source of neuropsychiatric patients was by transfer from other hospitals or by psychiatric disorders among patients with other than nonpsychiatric diagnoses. As would be expected in a convalescent hospital, however, a certain number of the patients whose medical or surgical conditions had cleared and who were about to be returned to duty developed symptoms of anxiety, depression, and the like. Minor neuropsychiatric problems were handled in the hospital, the patients being seen as often as indicated. The more serious problems were transferred to the 94th Field Hospital or 176th Station Hospital for open- or closed-ward care. There was no neuropsychiatric outpatient department at this hospital.

Capt. Paul Zimmering, MC, was the medical officer in charge of the neuropsychiatric unit.

Guam

204th General Hospital.—The 204th General Hospital arrived on Guam, 21 December 1944. Patients were first received on 8 January 1945, at which time the hospital had an official capacity of 1,000 beds, later increased to 2,000 beds with a functional capacity of 2,700. From 8 January to 1 August 1945, inclusive, 10,935 patients were admitted.

The neuropsychiatric section consisted of the chief of neuropsychiatry, Lt. Col. Samuel A. Weiss, MC, assisted by Capt. (later Maj.) Bernard F. McLaughlin, MC, and Capt. Robert L. Bowan, MC. Both assistants received their psychiatric training under Colonel Weiss.

Lt. Edward C. Foley (master's degree in psychology) was the clinical psychologist, and T4g. Joseph Neipers (master's degree in social service) did the psychiatric social service work. Most of the nurses and ward attendants had had previous neuropsychiatric training and experience.

The neuropsychiatric section consisted of two open wards, total capacity 80 beds, and two locked wards, total capacity 48 beds. There was no special prison section. One of the locked wards had an occupational therapy shop which was accessible to all psychiatric patients. For a period of about 6 months, all Army locked-ward patients on Guam were referred to the 204th General Hospital for hospitalization. The neuropsychiatric section handled the intrahospital psychiatric and neurological consultations as well as the psychiatric and neurological outpatient clinic.

Patients could be admitted or transferred to the neuropsychiatric section without the prior approval of a psychiatrist.

On admission, if time permitted, the complete "55" [13] series was used for the workup which incorporated past history, mental status, and so forth. At other times, an abbreviated form was used. Psychological tests used were the Binet-Simon, Kent Emergency, and Minnesota Multiphasic.

Therapy consisted of group orientation, group psychotherapy, individual psychotherapy, narcosynthesis, hypnotherapy, sedation, and neutral packs. A fixed schedule recreational therapy program was conducted under the immediate supervision of the psychologist. Various other drugs were used where indicated; for example, amphetamine for depressive states. A study of the value of ergotamine tartrate in combat anxiety was made, which indicated that it was of little value.

Sheet restraints and nasal tube feedings were very rarely used. There were no untoward occurrences such as suicides and accidents.

The neuropsychiatric section cooperated in the hospital weekly medical meetings and in the regular monthly meetings of the Society of Neurologists, Psychiatrists, and Neurosurgeons of Guam.

373d General Hospital.—The 373d General Hospital arrived at Guam on 5 December 1944. It began receiving patients on 21 December 1944 while officially a 750-bed station hospital. By General Orders No. 18, WPBC, 30 May 1945, however, this hospital was transformed into a 1,000-bed general hospital. From 21 December 1944 to 31 August 1945, inclusive, the hospital admitted 9,361 patients.

The neuropsychiatric section consisted of one psychiatrist, Capt. Brooks A. Colomb, MC, who also served as the neurologist. There were no psychologists and no neuropsychiatrically trained nurses. The neuropsychiatric ward attendants, with few exceptions, had no previous special training. No course of instruction was given the ward personnel. The psychiatrist also held outpatient neuropsychiatric clinics and performed intrahospital neuropsychiatric consultations. No statistical records of these duties were kept.

The neuropsychiatric section consisted of two wards with a total of 92 beds, but at no time was more than one ward utilized. The locked-ward section had a capacity of 10 beds. There was no special prison ward. Patients could be routinely admitted to the neuropsychiatric section by the admitting officer or could be transferred to the section from other wards without prior acceptance by the psychiatrist.

Patients on admission were worked up, using the complete 55 series. Routine laboratory tests were urinalysis and complete blood count; however, psychological tests were utilized.

Therapy was held to a minimum and was chiefly symptomatic (sedation). Group therapy, narcosynthesis, hypnotherapy, insulin, and so forth

[13] Official chart forms used for complete diagnosis and treatment of patients.

were not employed. The "hobby tent" of the American Red Cross was utilized for recreational therapy. After June 1945, neuropsychiatric patients were sent to the 94th Field Hospital, Saipan, for further examination and treatment.

There were no untoward occurrences, such as suicides or accidents, on this section.

The chief source of patients was from the Army garrison force. A few Navy and Marine Corps patients were handled as emergencies. Evacuees were received from the Iwo Jima and Okinawa campaigns.

Tinian

Following the invasion of Tinian, five Navy G–6 units gave medical care to Army patients on Tinian until December 1944 when Naval Base Hospital No. 19 opened. Presumably, there were few neuropsychiatric cases from the small Army garrison force, but records in the G–6 units are not available. A review of admission records of Base Hospital No. 19 from December 1944 to 23 February 1945 when the 374th General Hospital opened and during the months of May and June 1945, when approximately 100 Army patients were admitted to the Navy hospital, revealed that no Army patients were admitted with neuropsychiatric diagnoses.

374th General Hospital.—On 12 January 1945, the 374th Station Hospital arrived on Tinian from the Zone of Interior and, on 23 February 1945, as a 600-bed station hospital, opened to receive 91 patients transferred from the 148th General Hospital. On 23 March 1945, the 48th Station Hospital arrived and was attached to the 374th Station Hospital. By 9 April 1945, the 374th Station Hospital had already expanded to 1,300 beds for expected casualties from forward areas. On 25 June 1945, the 374th and 48th Station Hospitals were reorganized to form the 1,000-bed 374th General Hospital under TOE 8–550, as amended.[14] The 48th Station Hospital, as such, was deactivated.

Capt. (later Maj.) George S. Fultz, Jr., MC, was in charge of the neuropsychiatric section. Assisting him was Capt. John B. Allen, MC, neuropsychiatric ward officer, who joined the staff in March 1945. No clinical psychologist was assigned to this hospital staff despite frequent requests and requisitions.

Three wards were assigned to the neuropsychiatric section, ordinarily, two 55-bed Quonset wards and an 18-bed closed Quonset ward. When the section was at its busiest, neuropsychiatric patients were also housed on general medical wards.

Captain Fultz also held psychiatric and neurological consultations and operated a neuropsychiatric outpatient clinic on three half days a week.

[14] See footnote 5, p. 600.

He also performed the medicolegal work on the island and had the prison ward on his section.

During the first 6 weeks of the hospital's operation on Tinian, 185 patients were admitted to the neuropsychiatric section. Of these, 139, or approximately 75 percent, were marines, acute neuropsychiatric casualties from the Battle of Iwo Jima; five, or 2.7 percent, were members of B–29 combat crews; and 41, or 22.2 percent, were from ASF (Army Service Forces) and AAF (Army Air Forces) ground crews. Of the 139 battle casualties from Iwo Jima, 132 were returned to Guam, presumably for full duty, and seven were evacuated to a Navy hospital for further treatment or survey; of the five combat crewmembers, four were returned to duty and one was evacuated to the United States; and of the 41 ASF and AAF ground crewmembers, 15 were evacuated to either the Hawaiian Islands or the United States for further treatment and disposition, and the remaining 26 were returned to duty.

The Marine Corps casualties from Iwo Jima were, for the most part, from one division which had been overseas for about 26 months. Most patients in this group had been in two previous battles, the first on Bougainville, and the second on Guam. None had had any mental difficulty during either of these two battles other than the fear and fright that is common to all who take part in actual warfare. Only a few of those evacuated showed any predisposition to mental illness as evidenced by their past personal history and by their past behavior. Actually, most of these marines were about as ideal a group of American youth as one could expect to find under circumstances. They had previously adjusted well in military garrison life as well as in combat.

These Marine Corps patients arrived approximately 10 days after their last battle exposure with a diagnosis of "combat neurosis" or "combat fatigue" on their emergency medical tags. Although they had received no specific treatment until they were heavily sedated in transit aboard ship, they appeared and felt better upon arrival at the hospital. After studying these patients as individuals and as a group, the conclusion was reached that somewhat less than half had cerebral concussions,[15] and the remainder were combat fatigue and combat neurosis states.

The usual story of those that were believed to be true concussions was that the individual had been on the island in battle for about 10 days. Except for the fear that they considered normal under such circumstances, nothing unusual had happened to them during this period of time and they had been able to carry on successfully as riflemen, platoon leaders, flamethrowers, and the like. Then, on the day of evacuation from the island, they were suddenly caught in a heavy artillery barrage, or one of the Japanese heavy "Screamy-Jeemies" burst within a few feet of them. The individual

[15] That cerebral concussion was prevalent was a common belief of psychiatrists new to combat, but with later experience, it soon became evident that there was little difference between so-called concussion and "combat fatigue," or "combat neurosis." (See p. 18.)—A. J. G.

was perhaps buried under debris and usually was totally unconscious or at least severely dazed for a half hour or longer until he awoke or regained consciousness at the battalion aid station where he had been taken by the corpsmen, or by some of his buddies. After regaining consciousness, he broke down and cried, became tremulous, and was severely shaken. He was so weak that he found it difficult to walk, and couldn't concentrate. When these individuals presented themselves to the hospital, they were, as a rule, only mildly anxious and were sleeping fairly well, but practically all were still having battle dreams. Loud noises, such as explosions that occurred around the hospital, tended to make them jittery only temporarily. On physical examination, about 20 showed isolated findings of a contusion of one external auditory canal or of a very mild swelling of the optic nerve of one side; neurological examination was negative. These findings were present despite the absence of direct wounds; the patients had simply been rendered unconscious or dazed by the force of a blast or a series of blasts occurring close to them.[16]

The patients with combat fatigue and combat neuroses were different in that there had been no period of unconsciousness, and there were no organic findings on a neurological basis. They, also, had been exposed to enemy fire for about 10 days. Some believed that they became gradually exhausted and blamed it on lack of adequate food and sleep. Others panicked rather suddenly and exhibited a fairly typical hysterical state, especially after a severe traumatic battle experience or witnessing the death of close buddies. An interesting story of a 19-year-old marine replacement was verified by his commanding officer. This young marine became hysterically dazed and, while waiting to be evacuated, suddenly disappeared. He was then seen maneuvering expertly across the airfield under very heavy enemy fire, and later, mounting a stalled tank, where he remained for 2 hours directing fire against the enemy. Afterward, he exhibited a complete amnesia for the episode and was unable to relate how he was able to return safely to his unit. He was awarded the Silver Star for his gallantry.[17]

The treatment of both the concussion and the neurotic cases was relatively simple. These patients had been away from battle some 10 days and were surprisingly well when first seen at the 374th General Hospital. They simply asked for and got a short period of rest. They were kept occupied with softball and volleyball, with truck rides about the island, and with an easy form of kitchen police duty. Most of them knew that they were going to have to go back to duty sooner or later, and actually, all of them asked to be sent back. But none wanted to go back into the hell of Iwo Jima. They knew that they would be sent back to Guam for a rest and that it would be from 3 to 6 months before their organizations would be sufficiently

[16] See footnote 15, p. 610.

[17] The major portion of the history of the 374th Station and General Hospital was extracted from a report given by Capt. George S. Fultz, Jr., MC, at a meeting of the Tinian Medical Society in May 1945.

reorganized to do battle. Another factor that influenced a goodly number in wanting to return to duty as soon as they possibly could was that they had been overseas such a long time they thought that perhaps some of them would be sent home on rotation before the time came for participation in another battle. The few that were sent to a Navy hospital either were quite severely depressed to the extent they would require hospitalization for much longer than 30 days, or were replacements who appeared to be basically unfit for combat duty.

It was anticipated that as personnel, airstrips, and missions increased so would neuropsychiatric problems. Army neuropsychiatrists knew little about the Army Air Forces or its policies. Thus, conferences were held locally with the Air Surgeon and individual flight surgeons. Not only were policies discussed regarding hospitalization, treatment, and evacuation, but future planning and etiology were also explored.

The major stress experienced by B–29 crews was the long 15- to 16-hour over-water trip with only sufficient gasoline to reach their target and return. Several factors were operating at the time to account for the high morale and the low neuropsychiatric casualty rate. Only a few crews found it necessary to ditch, and the air-sea rescue operations were working satisfactorily. A minimum of opposition was encountered over the Japanese mainland and over the target. Crewmembers were able to survey the destruction caused by their bombs so that they were exhilarated and even perhaps euphoric. The crews were also aware that after 35 missions they would be returned to the States, and missions were so frequent that many crews finished more than half their missions in 6 months. Those few cases that were referred for neuropsychiatric care were due to uncommon stress, to fatigue after many distressing missions, or to basic personality deviations that appeared only under increased situational stress. The final disposition of such personnel was an AAF responsibility.

In addition to other psychotherapeutic procedures, treatment at the 374th General included sedation, narcohypnosis, and hypnosis. Insulin and Metrazol shock were used only in those cases which were still agitated, disturbed, or difficult to handle after a month or more of sedative therapy. The absence of an electroshock machine was distressing to the chief of the neuropsychiatric section because the large number of reactive depressions, mainly among ASF personnel and AAF ground crew personnel, could have been salvaged by such treatment.

A MAC first lieutenant was in charge of the reconditioning program for the whole hospital. Every patient who was not too sick had to be off the wards from 0900 to 1100 hours. The program consisted of calisthenics, athletics, swimming, and fishing trips. Patients on the neuropsychiatric section did extensive landscaping around the wards and, with the help of the Federal Economic Administration, grew vegetables to help supply the hospital with fresh produce. Red Cross facilities were available but played

a less important part in this hospital than did the reconditioning and recreational programs.

Other hospitals.—In addition to the 374th General Hospital, five general hospitals plus the 821st Hospital Center were present on Tinian. The five general hospitals did not function during the period covered by this history though some of their personnel visited on temporary duty or worked in active hospital installations in the Western Pacific Base Command, especially on Saipan. The five general hospitals with the names of their chiefs of neuropsychiatric sections and dates of arrival on Tinian were, as follows:

Hospital	*Chief of neuropsychiatric section*	*Date of arrival*
303d General Hospital	Maj. Charles H. Brown, MC	16 July 1945
304th General Hospital	Maj. (later Lt. Col.) Rudolph S. Matthews, MC	14 July 1945
308th General Hospital	Maj. Harold A. Pooler, MC	16 July 1945
309th General Hospital	Lt. Col. Arthur T. Colley, MC	14 July 1945
310th General Hospital	Maj. Paul Rosenfels, MC	14 July 1945

Iwo Jima

38th Field Hospital.—The 38th Field Hospital, originally assigned to the V Amphibious Corps to provide medical care for civilians, assisted in the handling of casualties who were still aboard two APA's (transport, attack) while lying offshore, from D-day until 27 February 1945. On 27 February, the hospital was called ashore, and on D+15, it opened to receive battle casualties, 400 beds in tents being available. The hospital serviced Navy and Marine Corps patients, but no data regarding the neuropsychiatric cases were available from the statistical health reports (WD MD Form 86ab). The hospital was still on Iwo Jima on 1 September 1945 but later departed for Okinawa.

The hospital admissions from 23 June 1944 through 31 August 1945 totaled 6,078. Concerning its work, the commanding officer, Lt. Col. Samuel S. Kirkland, MC, stated, as follows:

> Psychiatric patients admitted to the hospital during the combat phase were given rest and good food and if such cases were of minor degree (combat fatigue) were usually returned to duty after the 3d or 4th day in the hospital. Problems arising relative to the more serious type of psychiatric patients who were to be evacuated, resulted in such patients being held for several days or perhaps a week due to the fact patients were evacuated by water transportation only. This, of course, resulted in a holdover of such patients, necessitating delay in treatment.

41st Station Hospital.—The 41st Station Hospital arrived at Iwo Jima on 7 March 1945 from the United States via the Solomon Islands and opened to receive patients on 25 March 1945. The official size of the hospital was 250 beds, but its functioning capacity was 500. Its peakload was 202 patients in May 1945.

When the hospital left the United States, a neuropsychiatrist was on

the staff, but he was separated from the unit in Oahu. From 25 March 1945, when the hospital opened, until 10 April 1945, only five or six neuropsychiatric patients were admitted, and they were cared for by Maj. Louian C. Carter, MC, chief of the medical service.

From 10 April to 10 May 1945, Capt. Stanley U. Stanmar, MC, chief of the neuropsychiatric section of the 232d General Hospital, worked at the 41st Station Hospital, being in charge of the neuropsychiatric section and outpatient clinic. After Captain Stanmar returned to his proper organization, neuropsychiatric patients were transferred or referred to the 232d General Hospital for care and treatment. Thereafter, there was no official neuropsychiatric section at the 41st Station Hospital, and any mild neuropsychiatric cases were handled on the general medical wards.

232d General Hospital.—The 232d General Hospital arrived on Iwo Jima on 5 April 1945 from the United States and officially opened to receive patients on 1 May 1945. Its authorized bed capacity was 1,000, but the highest patient load was about 450, in June 1945.[18]

The neuropsychiatric staff, in addition to Captain Stanmar, consisted of Capt. Lewis A. Hoffman, Jr., MC, ward officer, and 1st Lt. William Hooper, AGD, clinical psychologist. Both Captain Stanmar and Captain Hoffman had attended the School of Military Neuropsychiatry at Mason General Hospital.

Two wards for open- and closed-ward cases were assigned to the neuropsychiatric section. No closed ward was used for patients until August 1945. One ward tent was used as the neuropsychiatric clinic.

A policy, immediately instituted, provided that no patient was to be admitted to the neuropsychiatric section until a neuropsychiatric evaluation or a medical clearance had been obtained. This procedure, properly managed, saved many man-hours of work and avoided needless hospitalization. Patients examined on wards, other than the neuropsychiatric, were not as a rule transferred to the neuropsychiatric ward unless exhibiting severe reactions. The medical staff was encouraged to treat them as medical cases and refer them if necessary at the time of discharge to the outpatient neuropsychiatric clinic.

The treatment of inpatients was similar to that used in other hospitals and included sedation, narcohypnosis, and so forth. Captain Stanmar, however, found that by "pricking" the ends of (Sodium Amytal) capsules, he could obtain a faster response to the medication.

Angaur

The 39th Station Hospital arrived on Angaur on 13 October 1944, and replaced the 17th Field Hospital which had been functioning during the

[18] This section is based on "A Brief Report of a Neuropsychiatric Clinic on Iwo Jima," an original article prepared by Capt. Stanley U. Stanmar, MC, Chief, Neuropsychiatric Section, 232d General Hospital, Iwo Jima.

campaign. The authorized bed capacity of the 39th Station Hospital was 250 beds. Its peakload was 322 during October 1944. The usual census ranged from 150 to 200, gradually decreasing until the hospital closed on 20 May 1945. Actually, this hospital, except for the last few weeks, functioned before the Western Pacific Base Command was created.

The hospital was under tentage for about 5 months, which included two open neuropsychiatric wards. On 10 March 1945, the hospital moved into prefabricated buildings where there was one open neuropsychiatric ward, but no closed-ward facilities. Army, Navy, and Marine Corps neuropsychiatric patients were admitted.

In November 1944, an outpatient clinic was organized and functioned three afternoons a week.

Capt. Edward C. Heyde, MC, who was in charge of the neuropsychiatric section, reported, as follows: [19]

> Combat anxieties were relatively few, even at the beginning of our work * * *. After the combat ceased, we began to treat mainly garrison psychiatric patients, usually with but little success. A few Pentothal treatments were given, these being rather disappointing in their results. The chief therapeutic method was evacuation. The psychiatric work was done by an officer with no previous training in neuropsychiatry * * *.

The number of hospitalized neuropsychiatric patients cared for during the period of operation on Angaur totaled 221. No breakdown was available on the Army and non-Army proportion of these cases.

Medical Facilities at Other Installations

23d Replacement Depot.—The 23d Replacement Depot, activated on 1 June 1944, arrived on Saipan on 12 February 1945, and began to function shortly thereafter. Its purpose was to house, feed, equip, train, and process Army troops sent from the United States and elsewhere who were to remain in this area or go forward in support of the Tenth U.S. Army. In addition, the same services were rendered for patients discharged from hospitals in the Western Pacific Base Command who had been admitted from forward areas. More processing had to be done for this group inasmuch as many soldiers discharged from hospitals had disabilities which made them unfit for combat service. A considerable proportion were neuropsychiatric disorders.

The consultants in neuropsychiatry from both the Replacement Training Command in Oahu and the Western Pacific Base Command worked in close cooperation with Maj. Paul J. Leehey, MC, Surgeon, 23d Replacement Depot. For February–August 1945, the depot reported 123 neuropsychiatric cases, requiring hospitalization or special treatment such as care in a neuropsychiatric outpatient clinic, which were diagnosed as follows: Schizophrenia, 5; manic depressive, 1; psychosis, unclassified, 3; anxiety, 75;

[19] Personal communication to the authors.

hysteria, 8; psychoneurosis, mixed, 3; reactive depression, 3; psychoneurosis, unclassified, 9; epilepsy, 8; and psychopathic personality, 8. Not included in these cases were much larger numbers of men with either mild or moderately severe psychoneurotic tendencies. The psychoneurosis recorded usually occurred in men who had been in combat several months and previously hospitalized with the same diagnoses. The neuropsychiatric rate was higher among men discharged from hospitals awaiting reassignment to noncombat organizations than among replacement troops sent from the United States.[20]

The consultant in neuropsychiatry from the Replacement Training Command in Oahu stated that, upon his arrival in Saipan in June 1945, there was an accumulation of several hundred persons in the depot with classification and disposition problems, most of them being psychoneurotic. He also stated that the liaison officer and the G–1 (personnel) of the Tenth U.S. Army were experiencing difficulty in utilizing psychoneurotics despite their assignment to rear echelon duties. He further pointed out that the policy of withholding shipment of psychoneurotics to Okinawa brought about an accumulation of these persons in the depot.[21]

The need for a trained neuropsychiatrist at the 23d Replacement Training Depot was expressed by the depot surgeon in a report of 15 June 1945.[22]

A clinical psychologist was assigned to the depot and assisted in the assignment of personnel to appropriate types of work.

Army Air Forces units.—Mention should be made of the presence of the bombardment wings on Tinian, Saipan, and Guam, and of the various fighter groups on these islands at one time or another and later concentrated on Iwo Jima. Good rapport between the air force surgeons and the consultants in neuropsychiatry was reported on all the islands concerned.

A study of the effects, psychiatric and otherwise, of ditching on the members of 18 B–29 crews was made by Capt. (later Maj.) Frank H. Bowles, Jr., MC, of the 505th Bombardment Group at the instigation of Maj. Josh W. Epton, MC, both of the 313th Bombardment Wing, Twentieth Air Force, stationed on Tinian. (See pp. 877–879).

SUMMARY OF CAMPAIGNS

Iwo Jima

The Iwo Jima campaign was characterized by an extremely high rate of casualties particularly in the first days of the invasion. During the first week, the men were pinned down in exposed positions to heavy accurate

[20] Memorandum, Lt. Col. Warren T. Brown, MC, Neuropsychiatric Consultant, Headquarters, Office of the Surgeon, Western Pacific Base Command, for the Surgeon, Western Pacific Base Command, 11 June 1945, subject: Survey of Replacements.

[21] Report, Maj. Isaac C. East, MC, Neuropsychiatric Consultant, Replacement Training Command, Oahu, to Surgeon, Western Pacific Base Command, 23 Aug. 1945, subject: Tour of Duty of Staff Psychiatrist at the 23d Replacement Training Depot From 23 June 1945 to 17 August 1945.

[22] Essential Technical Medical Data, Headquarters, 23d Replacement Depot, dated 15 June 1945.

Japanese artillery fire with the ocean their immediate rear. At first, only first aid stations were able to land. Being themselves exposed to heavy fire, they were able to render only the most immediate emergency treatment. Marines unsuitable for combat even for a brief period of time were evacuated to waiting hospital ships. Apparently because of the unexpectedly stiff resistance and a casualty rate several times that anticipated, the screening, particularly of psychiatric casualties, was not rigid, and in many instances because of the rapid movement of ships, facilities were not available for the treatment of the milder cases for a few days and then return to duty. As a result, a great number of mild psychiatric cases were evacuated that had recovered completely by the time they reached their destination.

Policies regarding the evacuation of casualties from the Marianas Islands, because of the steady flow, were subject to frequent revision. One day there would be a 60-day evacuation policy; the next, a 30-day evacuation policy. One day, convalescent marines of certain divisions would be sent from Saipan to Tinian; the next day to Guam, and perhaps the next to Oahu. Ambulatory patients were at times evacuated within 48 hours after admission. At one time, patients, both those requiring further hospitalization and those suitable for return to full duty, if they belonged to certain divisions, were evacuated en masse to Oahu. An exceptionally high incidence of "blast concussion" diagnosis was noted during the latter phases of this campaign. This was apparently an evasion employed to decrease the high incidence of "combat fatigues" previously reported.

It was estimated that from one-third to one-half of the psychiatric casualties were in suitable condition for return to combat within a few days after they were received for hospitalization in the Marianas Islands. Although no figures are available, it appeared that the number of psychotic and severe psychoneurotic reactions persisting for more than 2 weeks was extremely small as compared to the total number of psychiatric casualties.

Ryukyus

The first casualties were received from convoys that had been attacked by Japanese suicide planes. The landing on Ii-Shima was bitterly contested by the enemy and contributed a number of neuropsychiatric casualties. The actual landing on Okinawa met little enemy opposition, but the prolonged fighting on the southern end against a well-entrenched enemy supplied with ample artillery led to many neuropsychiatric casualties. The ceaseless activity of the Japanese suicide planes against the supporting naval ships further increased the neuropsychiatric load.

On Okinawa, there was sufficient time before the flow of heavy casualties to permit the setting up of adequate hospital facilities and necessary administrative procedures. The 82d Field Hospital was designated a neuro-

psychiatric hospital. It performed excellent work in the screening and treatment of neuropsychiatric casualties. Only those patients that were considered unsuitable for further combat or who proved resistive to therapeutic measures were evacuated to the Western Pacific Base Command. There was one exception to this policy. At one time, the hospital caseload was so heavy that almost all cases that would not be ready within a short time for duty were evacuated by order of the Tenth U.S. Army surgeon.

As a result of the screening of neuropsychiatric casualties by the 82d Field Hospital, the patients received by the hospitals of the Western Pacific Base Command were of two types. One group was returnable to noncombatant duty after brief, adequate treatment. The other group consisted of individuals who were considered unsuitable for further military service or who required prolonged hospitalization and treatment before being returned to noncombatant duty. Most of the latter were rapidly evacuated either to Oahu or to the mainland.

During the Okinawa fighting, the surgeon of the Tenth U.S. Army requested that none of the neuropsychiatric casualties sent to the Western Pacific Base Command be returned to duty. The 23d Replacement Depot had difficulty in finding adequate openings for the many neuropsychiatric patients returned to duty. This situation was partly alleviated with the termination of the Ryukyus Campaign at which time it became possible to send neuropsychiatric casualties returned to noncombatant duty to Okinawa as service force replacements.

STATISTICAL DATA

The only official form for the reporting of neuropsychiatric patients used throughout the Western Pacific Base Command was the statistical health report (WD MD Form 86ab). As this form included only Army patients, it did not give a complete picture of the total neuropsychiatric work. To obtain data on the total non-Army neuropsychiatric patients admitted monthly to the various hospitals required the utilization of a variety of sources.

The statistics on neuropsychiatric admissions had a number of inaccuracies. The source of the admission diagnosis varied from hospital to hospital, and even varied within the same hospital. In some hospitals, the admission diagnosis was taken from the emergency medical tag or the field medical record; in others, it was given by the receiving officer. Often, on admission, only a primary diagnosis was recorded. Other inaccuracies were incorrect admission diagnoses. Some patients were transferred from one hospital to another. They were, therefore, included more than once in most of the admission statistics. An attempt to partially correct this last difficulty was made on the figures from Saipan where they were given without, and then included, the 5th Convalescent Hospital. The 5th Convalescent

Hospital with the exception of a few battle casualties from the Ryukyus received all its patients by transfer from other hospitals.

The statistics on the total Army and non-Army neuropsychiatric admissions for the period June 1944–August 1945 (table 71) were obtained, in most instances, from hospital records which frequently included neurological cases admitted. On Saipan, the monthly communicable disease report submitted to either the Office of the Surgeon, WPBC, or AGF, was utilized. This report included the total psychiatric monthly admissions to each hospital. By subtracting the monthly psychiatric Army admissions included on Form 86ab, the total non-Army neuropsychiatric admissions were found. In the hospitals of other islands, it was necessary to use such hospital, medical service, or neuropsychiatric ward records as were available to secure the total Army and non-Army neuropsychiatric admissions and the total non-Army admissions. In many instances, neurological admissions were included which constituted a further source of error.

The total of Army neuropsychiatric patients discharged monthly was secured from the statistical health reports. The total number discharged and those returned to duty, for the period June 1944–August 1945, are shown in table 72.

TABLE 71.—*Neuropsychiatric admissions to medical treatment facilities, Army and non-Army, Western Pacific Base Command, June 1944–August 1945*

Location and hospital	Total neuropsychiatric admissions (number)	Army admissions (number)	Non-Army admissions (number)
Guam:			
204th General Hospital	1,036	777	259
373d General Hospital	(1)	379	(1)
289th General Hospital	(1)	26	(1)
Tinian:			
374th General Hospital	523	314	209
Saipan:			
148th General Hospital	1,125	424	701
39th General Hospital	169	111	58
369th Station Hospital	1,002	568	434
176th Station Hospital	946	557	389
94th Field Hospital	1,447	593	854
38th Field Hospital	30	30	----------
5th Convalescent Hospital	(1)	105	(1)
Iwo Jima:			
232d General Hospital	232	164	68
41st Station Hospital	42	42	----------
38th Field Hospital	145	2	143
Angaur:			
39th Station Hospital	(1)	(1)	(1)

[1] Information not available.

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TABLE 72.—*Disposition of neuropsychiatric patients from medical treatment facilities, Western Pacific Base Command, June 1944–August 1945*

Location and hospital	Discharged (number)	Returned to duty (number)
Guam:		
204th General Hospital	672	183
373d General Hospital	341	126
289th General Hospital	26	15
Tinian:		
374th General Hospital	280	157
Saipan:		
148th General Hospital	424	82
39th General Hospital	97	14
369th Station Hospital	546	55
176th Station Hospital	529	99
94th Field Hospital	368	104
38th Field Hospital	[1]	[1]
5th Convalescent Hospital	184	171
Iwo Jima:		
232d General Hospital	153	96
41st Station Hospital	42	10
38th Field Hospital	3	2
Angaur:		
39th Station Hospital	[1]	[1]

[1] Information not available.

RECOMMENDATIONS

Those areas containing large garrison forces, and areas receiving large numbers of combat casualties, should contain neuropsychiatric centers or hospitals. This concentration of neuropsychiatric work is preferable to its distribution among a number of general or station hospitals.

It is expedient that men well trained in psychiatry and neurology be placed in areas where there is a heavy neuropsychiatric load. During 1944, there was not one well-trained neuropsychiatrist and possibly only one trained neurologist in the area later comprising the Western Pacific Base Command. It is also essential for neuropsychiatrists to be assisted by well-trained psychologists.

Large bodies of troops, such as air wings and replacement depots, should have attached neuropsychiatrists and psychologists. It is essential that the neuropsychiatrists treating these men be familiar with the problems, personnel, and administrative procedures peculiar to these groups.

Medical units constituted as neuropsychiatric centers or acting as provisional neuropsychiatric centers should have tables of organization and equipment commensurate with their workload and responsibilities. During the period of time that the 176th Station Hospital served as the neuropsy-

chiatric center for a garrison of about 100,000 troops and combat casualties evacuated to Saipan, the hospital was denied a requisition for a hand perimeter on the grounds that it was not included in its table of equipment. There was also an unremediable scarcity of tuning forks and percussion hammers for the medical officers doing neuropsychiatric work. In addition, no psychologist or psychological tests could be secured by this hospital.

The procedure for securing drugs considered necessary by neuropsychiatric officers should be improved. For example, every neuropsychiatric officer on the island of Saipan since the date of its occupation submitted numerous requisitions through designated official channels to secure the drug ergotamine tartrate for use in cases of migraine. Not one ampoule of this drug was received.

Recreation and education are indispensable aids in any program of psychotherapy. At least in hospitals, there should be an established policy for coordinating the work of the neuropsychiatrist, of the Red Cross, and of the information and education officer. Generally speaking, the information and education program was inadequate; within many units, its functioning was often nothing short of tragic. Enlisted men were often more carefully picked for kitchen police duty than were officers for information and education work. A program of psychiatric prophylaxis and rehabilitation requires the cooperation of a satisfactory program of education and information that is effective through all ranks.

Under then existing administrative procedures, the neuropsychiatrist had no proper means of keeping himself informed as to the action taken on his recommendations for patient disposition after the patient returned to duty. This inadequacy should be corrected. In addition, the neuropsychiatrist should be given more control over ultimate patient disposition.

The system used for keeping Army medical records led to frequent duplication of clinical, psychological, and laboratory examinations of patients because of the inability of medical officers in most instances to secure the records of previous examinations at other medical installations. In addition, valuable sources of psychiatric and medical information remained inaccessible when most needed. A type or system of medical records that will accompany a soldier throughout his tour of duty is desirable.

CHAPTER XVII

Division Psychiatry in the Southwest Pacific Area

Jules V. Coleman, M.D.

GENERAL CONSIDERATIONS

As has been repeatedly stated throughout this volume, the principles and practices of combat psychiatry, as followed in World War I, had to be rediscovered in World War II, especially the assignment of psychiatrists to combat divisions.

On 9 November 1943, almost 2 years after Pearl Harbor, when the War Department finally authorized inclusion of a neuropsychiatrist in the tables of organization and equipment for divisions,[1] the psychiatrist was to be attached to division headquarters and directly responsible to the division surgeon, but otherwise had no functionally defined place in the table of organization, no staff of his own, no command responsibilities, and no specific statement of duties. To a considerable extent, it became his task to develop his own program, on the basis of his previous experience, his concept of his military role, and the major military requirements of manpower conservation and effectiveness.

Most role functions in the military service are characterized by clear job description and by traditional practice. The role of the psychiatrist on the other hand was characterized by ambiguity; that is, by a lack of clear statement of role and by a lack of institutionalization of his assignments and duties.

In the 38th Infantry Division,[2] however, the absence of structure proved to be not a handicap, but an asset. It made it possible for the psychiatrist to develop programs at every level and with every unit of command. He was able to institute policies of prevention and control with the full support of the commanding general, and to relate treatment closely to all social support processes in the division which contributed to effective morale. He could move freely throughout the division, at any time and in all circumstances, to observe and analyze the morale climate, and to get to know officer personnel, line as well as medical. As a result, he was able to develop psychiatric preventive and control procedures as an integrated aspect of command function and operation.

[1] War Department Circular No. 290, 9 Nov. 1943.

[2] Since psychiatrists in divisions in the Pacific tended, under the influence of consultant advice, guidelines, and War Department directives, to work along parallel lines, I have based the discussion in this chapter on my work as division psychiatrist in the 38th Infantry Division, as an example of the range of the psychiatrist's activities, his policy orientations, and his methods of policy implementation.

FUNCTIONS OF THE PSYCHIATRIST

The functions of the psychiatrist are likely to be very different depending on whether he joins the division while training in the United States, while it is preparing for or in process of overseas movement, while it is in precombat staging areas, or actually in combat. To some, it would seem that the major function of the psychiatrist is defined by the division's combat experience, and that it consists of identifying and making proper provisions for the care and disposition of troops suffering psychiatric impairment in combat. It should be clear, however, that a psychiatrist with a division in training in the United States will see his major function as caring for the emotional problems of what is essentially in many ways still a civilian population.

When a division prepares to move overseas, there is great pressure from line officers to weed out those they consider unfit for combat. In a division moving gradually, over a period of time, toward combat engagement—as was often the case in the Pacific—the psychiatrist can help to prepare troops by familiarizing them with the anxiety reactions they might experience in combat. Finally, in combat itself, the psychiatrist maintains stability of troops by caring for individuals with psychiatric disturbances, and by proposing and supporting measures to prevent unnecessary combat reactions and particularly unnecessary manpower losses.

A general statement of the duties of the division psychiatrist may be formulated, as the result of actual experience in the 38th Infantry Division, as follows:

1. Evaluation of men presenting psychiatric complaints and reactions, on the basis of their availability for service within the division.
2. Education of medical and line officers in the basic principles of psychiatric management in a combat division.
3. Establishment of liaison with all elements in the division contributing to its morale climate, recognizing that morale is basically a command function.
4. Lecturing to all units on the recognition of combat anxiety.
5. Developing a program of psychiatric care in combat with the objectives of maintaining morale, preventing unnecessary combat reactions and losses, and contributing to the combat effectiveness of the division.
6. Analyzing problems which have developed in psychiatric prevention and treatment during combat, and developing methods to correct them.

Screening

The author began his role of division psychiatrist when he joined the 38th Infantry Division at a staging area in Alexandria, La., in November 1943; the division shipped out to Hawaii on 31 December. In these few

weeks of grace, he was bombarded by requests from line and medical officers to review the status of several hundred men who were considered unfit for combat duty. Having no criteria for screening out such men except the level of anxiety they manifested on examination, he finally selected a group of 46 who did not seem to be suitable by any criteria for any kind of arduous duty, to say nothing of combat. Despite requests to higher headquarters for reassignment of these men out of the division, they accompanied the division and, for the most part, turned out to have nothing more serious than "gangplank fever." A followup study carried out after the division's major combat experience disclosed that 35 of the 46 were still on duty with the division, and only five or six could be identified as having experienced psychiatric difficulties.[3]

The problem of screening soldiers for combat is difficult, largely because it is impossible to assess the relationship between a previous civilian history of emotional instability and transient anxiety states, and subsequent combat reactions. Soldiers with apparently "good" backgrounds may do badly, and vice versa. An important factor appears to be the soldier's experience with his own anxiety. If he has been able to allow anxiety to become overt and to develop his own coping mechanisms in "sweating it out," he is more likely to be able to tolerate combat anxiety. If he has been unable to allow his anxiety to become overt; that is, if he cannot acknowledge that he is anxious, and cannot talk about it, he is in danger of an anxiety breakthrough in combat which overwhelms him, at least temporarily.

A final unpredictable factor is the morale level of the particular unit (company level, in particular) in which the soldier finds himself. Good morale, good leadership, and a sense of group cohesion and pride are supporting and sustaining even to shaky soldiers, and the reverse may be threatening even to the fairly secure. The incident which follows illustrates that last point.

On Luzon, while a regiment of the 38th Infantry Division was moving into combat position, the clearing station received more than a hundred men, from two companies, displaying acute anxiety manifestations. They came in a steady flow within a period of 2 or 3 hours. Toward evening, the regimental surgeon came storming in, furious that so large a group of men had developed a mass anxiety reaction, and demanded that they be promptly returned to duty. A compromise was reached when the psychiatrist agreed to return them the following day, for he was confident that overnight rest and sedation would restore them completely—which it did. The "epidemic" of anxiety had been caused by the psychiatric incapacitation of the commanding officer of one company, and the assistant commanding officer of the other.

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[3] Coleman, J. V.: Prognostic Criteria in Soldiers With Psychiatric Problems. J. Mil. Med. in the Pacific 1: 32–35, December 1945.

Education and Training

During the 38th's stay on Oahu, the psychiatrist took advantage of the allotted several months of jungle training to get to know many of the line and medical officers, visiting units at their training sites scattered all over the island, lecturing on psychiatric topics to officers, and, whenever possible, to enlisted men also. A byproduct of such activity was to make the psychiatrist more visible to the division community so that the process of psychiatric care would become associated with a familiar person.

On Oahu, the writer attended a school conducted by the Information and Education Section of the Eighth U.S. Army on methods of instructing men on the causes and purposes of the war, and on the nature of the enemy. He was appointed information and education officer of the division in addition to his duties as psychiatrist, and after the division moved to the Buna-Gona area in New Guinea, a program of instruction for the division as a whole, utilizing information and education materials, was conducted. A school was established, and instruction was offered in any subject for which an instructor could be found, and for which text material was available through information and education services. Although classes were small, about 3,000 men enrolled in the school, a testimony to the range of skills that can be turned up in an infantry division.

There were also classes for a surprisingly large number of illiterates, about 150. These men who could not read or write came from backwoods country where they had had little or no schooling but had early learned how to use a rifle. They proved to be courageous and dependable soldiers, and their illiteracy seemed at no time to be a handicap to them.

Morale.—Effective moral support was also contributed by the special services officer who published the division newspaper and sent news reports on individual soldiers to their hometown newspapers. The division paper served as an outlet for "gripes," as well as a news medium. It provided opportunities for the G.I. to gibe at and lampoon officers who leaned too heavily on discipline, and regulations which seemed arbitrary and unreasonable. Items to hometown newspapers were sent out in huge volume. The items themselves were not necessarily of great moment, for example, promotion from private to private first class, but they were important to the men, and to their families.

Atabrine psychosis.—On New Guinea, division personnel had their first taste of a jungle culture. In transit to New Guinea, troops were indoctrinated in Atabrine (quinacrine hydrochloride) discipline, and were systematically frightened by overzealous medical officers on the consequences of malaria. A startling increase in the rate of psychoses in the 38th Infantry Division, in the first 2 months, may have been due to the toxic effects of Atabrine, or to the primitive nature of life in New Guinea, or to the additive effects of the iatrogenic, toxic, and environmental stresses.

The 38th Division's medical report of 10 October 1944 to the Surgeon, Eighth U.S. Army, contains the following paragraph:

> There has been an abrupt increase in the rate of psychoses. In the nine month period from November 1943 through July 1944, there were only 10 cases of psychosis in the division, whereas in the month of August 1944 alone there were nine cases. The division arrived in New Guinea on 4 August. In September 1944 there were six cases of psychosis. The general character of these psychotic reactions is schizophreniform, with acute onset and generally no history of previous difficulties or complaints within the unit.

In addition, it should be noted that there were clear evidences of organicity in the reactions of patients, who were disoriented and confused. Marked facial flushing, agitation, excitement, over-talkativeness, and flight of ideas were also present in a clinical picture which tended to be very similar from case to case. The 11th Airborne Division which arrived in New Guinea at about the same time as the 38th had virtually the same experience with an increased psychosis rate. However, the 11th Airborne had been taking small doses of suppressive Atabrine for several months.

ATTITUDE OF COMMAND

The difficult military experiences of American forces during the early phases of the war created conditions that favored a high rate of psychiatric casualties. Jungle living, distance from home, the absence of accustomed landmarks and amenities and of culturally familiar civilian populations, and the "inscrutable" character of the enemy also contributed to the adaptive problems of U.S. Army troops on the remote Pacific islands. Nevertheless, in this early period, there was a good deal of antagonism among medical and line officers toward soldiers who developed psychiatric reactions. There appeared to be considerable reluctance to recognize that these reactions were involuntary, and indeed should be considered acute illness episodes; rather, they were often regarded as manifestations of moral weakness, cowardice, and a desire to shirk duty. Attitudes of this kind made it difficult to set up the necessary provisions for the medical care of soldiers suffering from psychiatric reactions, and thus return them quickly to duty.

An example of early attitudes of commanding officers toward men suffering psychiatric breakdown in combat was reported by Lt. Col. Martin A. Berezin, MC. Because of the unsympathetic attitude of the commanding general of the Americal Division, Colonel Berezin had to resort to subterfuge to protect psychiatric casualties from court-martial (p. 461).

In contrast was the attitude of Brig. Gen. (later Maj. Gen.) William C. Chase, Commanding General, 38th Infantry Division. The division psychiatrist, asked to examine a soldier who had left his unit during combat on Luzon and had been found wandering around behind the lines, made a diagnosis of "simple schizophrenia" and recommended the man be evacuated

through medical channels. However, there was a good deal of pressure for the man to be court-martialed for desertion under enemy fire. The psychiatrist discussed the matter with General Chase who suggested that the psychiatrist talk to the officers and men in the soldier's company to see what they thought about it. Subsequently, all personnel queried, 15 or 20, unanimously agreed that he was not sick, that he was just a goof-off and a coward, and that he should be court-martialed. The psychiatrist reported the results of the survey to the general, who asked for a medical opinion. When told that the man was ill and should be evacuated, the general said, "O.K., then that's what we'll do."

As the preceding episodes demonstrate, the nature of psychiatric problems in the combat area was at first poorly understood. Soldiers with such difficulties were regarded as misfits, of no value to their units, unreliable, and possibly a source of danger to others in combat. The best policy, it was thought, was to separate them from the service as expeditiously as possible. Attitudes began to change as it became clear how close was the relationship between unit morale and the ability of the soldier to withstand danger and stress. It was also gradually accepted that many men might suffer what appeared to be even severe emotional reactions in combat, and yet be able with proper care and management to return to their units as combat effectives. In other words, it was recognized that combat reactions were aspects of the adaptive process of the individual to what was, after all, an abnormal situation, and that with few exceptions soldiers could be expected to learn to master their anxieties and to carry out their combat assignments.

It also became clear that unexpected numbers of men were seemingly incapacitated for service by psychiatric disabilities, and that a view which rejected their potential for rehabilitation and return to full duty courted serious consequences in manpower losses. At an early period in the Pacific campaign, evacuations of men to the United States for medical, and particularly psychiatric, reasons threatened to outrun the supply of replacements. The situation began to come under control as the influence of the psychiatric consultants in the South Pacific and Southwest Pacific Areas began to make itself felt and as more well-trained psychiatrists arrived.

PRINCIPLES OF MANAGEMENT

In relation to psychiatric problems in the divisions, the following principles of management and care were established and gradually accepted and implemented by medical and line officers:

1. The soldier's primary social group is his small unit. He depends on the companions he knows for a sense of stability and support, for protection against losing control of anxiety, and for maintenance of inner psy-

chological defenses. Treatment programs must, therefore, be directed toward preserving the continuity of the soldier's interpersonal network in this unit.

2. The military social group is consolidated by effective officer and noncommissioned officer leadership, characterized by a concern for the welfare of the individual soldier and an insistence, at the same time, that he get the job done.

3. Psychiatric reactions in a division are regarded as aspects of an adaptive process; they lead to greater individual competence in dealing with combat anxieties, and should rarely result in separation from a unit. An important element in morale is the clearly established policy that every man in the division shares responsibility and danger with all others. Leadership personnel, however, experiencing combat anxieties over which they lose control, are evacuated because of the contagious and contaminating effects of their reactions on soldiers under their command.

4. Combat reactions are treated in their own units if possible but, in any event, are kept within division control. In combat, the division clearing station becomes the major psychiatric facility. Once evacuated out of the division, a soldier's chances of returning to duty with his own unit decrease in proportion to the length of time he is under nondivision medical care.

5. In situations of prolonged combat, individual soldiers and units require rotation for rest and recuperation on the basis of a policy which recognized the degree of stress to which units, or individuals, have been exposed. This is a basic responsibility of command: to establish such a policy, provide proper facilities, and exercise vigilance to detect and uncover danger signals.

An example may be cited of the effectiveness of a policy of closely watching individuals and units to protect them from developing undue anxieties by providing short periods of rest and rehabilitation. The 149th Regiment of the 38th Infantry Division engaged in a month of fighting in the extremely rugged terrain of the Zambales Mountain Range west and northwest of Clark Field in Luzon, without suffering a single psychiatric casualty. This was accomplished by careful attention to the protection of the emotional health of personnel by cooperative efforts of line and medical officers. A Canadian reporter, William Stewart, described the combat situation as follows: "For the jungle-fighting GIs, it's almost a heart-breaking job that never ends, with days of broiling tropical heat or dismal rain, treks into gullies thick with thorny bamboo, across steep ridges dotted with Japanese caves and up the sheer sides of 1200-foot mountains on whose tops the Japs are dug in like moles."

An interesting medical-moral byproduct of rest camp use was a sudden sharp rise in the venereal rate. The camp was close to a stream where Philippine women came to do their laundry, and laundry was not all that got done. The unit chaplain, learning of the situation, became extremely indignant, charging that the rest camp had become a house of prostitution,

and that officers were tolerating the situation and looking the other way. A compromise solution was eventually worked out, with the chaplain transferred to another position.

GROUP FACTOR IN MILITARY PSYCHIATRY

A division is a self-contained mobile community with a hierarchal, authoritarian command structure, in a sense a "total" institution, but by consent of the governed.[4] Its social organization is characterized optimally by great stability and organizational effectiveness, and is the product of a traditional process of military indoctrination in which ambivalence to authority is heightened by the rigid enforcement of discipline, and by a social process of emotional support of the individual, through leadership concern and reinforcement through group cohesion and morale.[5]

The psychiatrist in a division is a stranger in a strange land. He is tied to the medical network only loosely, and his responsibilities are as much with the morale of units as with the mental health of the individual. In his role in the division, the psychiatrist perforce carries out a community mental health program. He is an agent both of the individual soldier in his practice of clinical psychiatry, and of command in his concern with the conservation of manpower. As an individual practitioner, without a staff of his own, his effectiveness depends on his ability to recognize the scope of his responsibilities to individual and group, to recommend policies which respect the interests of the individual soldier as well as the requirements of command, and to make his policies known to all elements of the division through personal communications and the development of personal relationships.

COMBAT PSYCHIATRIC PROBLEMS

The 38th Infantry Division had its first combat experience in Leyte, but on a limited basis (one regiment), and then went on to participate in the Luzon campaign—4 months of combat from February through May 1945.[6]

Tactical Situation

The initial landing was made 29 January 1945, without enemy opposition, in the southwest corner of Zambales Province on the west coast of Luzon (map 30). A breakthrough into Bataan was achieved after bitter

[4] The Military Establishment is under the control of the President and Congress, and thus functions "by consent of the governed."—A. J. G.

[5] Coleman, J. V.: The Group Factor in Military Psychiatry. Am. J. Orthopsychiat. 16: 222–226, April 1946.

[6] Letter, Maj. Jules V. Coleman, MC, Headquarters, 38th Infantry Division, Office of the Surgeon, to Surgeon, Sixth Army, 15 June 1945, subject: Combat Psychiatric Problems in an Infantry Division.

fighting for the Zig Zag Pass. A South Force, which was then dispatched to seize Mariveles at the tip of Bataan, participated in the battle for Corregidor, and stormed the nearby islands of Caballo, Carabao, and El Fraile, to clear Manila Bay. A North Force engaged in extensive mopping-up operations west of Fort Stotsenburg while elements of the division took control of the large area from Tarlac to Mariveles. About May 1945, the division was transferred to the Marikina Watershed Area, northeast of Manila, and succeeded in rooting the enemy out of strongly entrenched mountain positions cutting off the Manila water supply.

Neuropsychiatric Casualties

During the 4 months of combat, 779 neuropsychiatric patients were admitted to the division clearing station. They exhibited every type of psychiatric problem, from psychoses to mild fatigue states which could well have been cared for in a rest camp. The two important factors in the relatively high number of combat reactions were the lack of previous combat experience, and the rough fighting into which the men were thrown for their first baptism of fire. Of these 779 patients, 558 (71.6 percent) were returned to duty directly from the clearing station. The remaining 221 (28.4 percent) were evacuated further, of whom 76 (9.7 percent) subsequently returned to the division, making a total of 81.4 percent returned to duty, as of 15 June 1945. There were 71 repeaters, 24 of whom were evacuated. There were 27 psychotics.

The neuropsychiatric cases represented 9.6 percent of total casualties, and 36 percent of battle casualties. The regiments had the bulk of cases, 734, as compared with 45 for all other units of the division. The heaviest fighting occurred in February and May, and 88 percent of the psychiatric cases were admitted during those 2 months. If all cases diagnosed as "exhaustion, overexertion" were excluded, the total number of psychiatric cases would be much lower. However, casualties so diagnosed were treated in the psychiatric section, and were given the same routine of treatment. Psychiatric factors were undoubtedly essential contributing elements to the development of the exhaustion state.

The chief problem in combat was the handling of large numbers of patients within the limited medical facilities of the division—the clearing station, the regimental aid stations, the collecting stations, and the regimental train areas. Battalion aid stations were usually too far forward to hold patients for treatment, but a good many men received comfort, reassurance, and support even from a brief contact with the battalion surgeon, who knew them and took advantage of an established rapport. Psychiatric treatment forward of the clearing station was a continuous process, providing care for many soldiers who needed rest and relaxation. Almost all men in the frontlines develop tensions and anxieties which are tempo-

MAP 30.—Luzon Campaign.

rarily hard to handle; judicious use of forward facilities may go far to sustain combat effectiveness.

Preventive Measures

Reconditioning section.—If 70 percent of psychiatric combat reactions can be returned to duty from the clearing station, it would seem advisable to hold all but psychotics within the division, to watch their progress and evaluate their capacity to regain control of their anxiety. During the first few days of combat, many patients were evacuated for other than psychiatric reasons: because of rapid change in the location of the clearing station (4 moves in 5 days), and because of inexperienced ward personnel. In anticipation of a rapid influx of patients, a reconditioning section was set up several days after the landing. It was a section of the clearing station, actually nothing more than a fly, under which patients slept on the ground, after a night or two of ward care, to make room for new admissions. In this way, 102 patients were given the additional time they needed for complete recovery before return to duty.

Management.—Ward personnel learned the routine of treatment in a surprisingly short time. They soon adapted themselves to the needs of the patients, giving them the necessary care, comfort, and companionship. Sedation was never used in the daytime, when patients were encouraged to be active, to get themselves washed and shaved, and to be up for "chow." Most of the men were assigned to duties in and around the station: helping on the wards and in the kitchens, and policing and improving the area. Hot drinks were served at night; showers, barbers, and laundry facilities were available for all patients. The Red Cross worker provided the drinks, supplemented the cigarette ration, and distributed comfort articles, reading material, and writing paper. The division newspaper was distributed daily, and a map board was prominently displayed.

Rest camp.—During April, the North Force operated a rest camp located in the two recreation buildings of a sugar plantation. One building was used as a dormitory for 125 soldiers, the other used as a Red Cross center. Adjoining were a swimming pool and a ball park. Admission was on a quota basis. No recognized psychiatric patients were sent to the rest camp, but it served a valuable preventive function. Soldiers were at first kept for 2 days and later for 4 days.

A rest camp is valuable because it offers relaxation and rest, and demonstrates command's interest in the soldier's welfare. It may be used to give each soldier a series of time limits during extended combat. If a soldier knows that he will be sent to a rest camp after a definite period of frontline duty, it helps to relieve the feelings he tends to develop of endless danger that leaves no hope of survival.

Replacements.—A large number of replacements were received during the 4-month period. They were all assigned by the division classification officer, and men with special skills were given proper assignments whenever possible. Replacements were welcomed on arrival by the commanding general, given some information on the history and tradition of the division, and told of the general's personal interest in their welfare. At their units, they were given such minor assignments as patrolling or policing the area, to allow them time to get to know their future companions and to adjust themselves gradually to flying bullets. This policy of handling replacements was very successful, and only a handful of the replacements turned up as psychiatric patients in the clearing station.

Reassignment.—Reassignment is, of course, necessary for a number of men who show a lack of tolerance for their anxiety. Although they are unable to serve as frontline soldiers, they often have intense loyalty to the division, and are eager to do a job to help their buddies up front. Very often, they are of more value in a division rear echelon job than any new replacement could be. Moreover, they present no psychiatric problem as long as they are not at the front; they can tolerate short periods of anxiety, but not the sustained tension of frontline duty. Thus, during the 4-month combat period, about 50 men were recommended for reassignment. It was recommended that a board of officers be appointed, consisting of the personnel officers of the division artillery, the engineers, the medical battalion, and special troops; the division classification officer; and the division neuropsychiatrist; to review all cases referred for reassignment, and to suggest suitable disposition. It was recognized that there was a saturation point beyond which reassigned personnel could not be absorbed by the division.

Plans were made to follow up all psychiatric patients who were returned to duty, and to institute a screening procedure on the basis of combat performance. It was the experience of the writer that combat performance is the only reliable criterion for screening. Of several hundred soldiers who were referred for psychiatric examination during a period of a year before combat, only a few turned up as psychiatric combat reactions.

A followup program also serves to bring psychiatric combat problems to the attention of line officers and senior noncommissioned officers.

Conclusions and Recommendations

The prevention of manpower losses due to psychiatric disability is primarily a command function, depending on multiple morale factors of which confidence in leadership is the most important. This can be most strikingly illustrated by comparing the incidence of psychiatric cases in the various companies, battalions, and regiments. The regiment which accounted for the most enemy dead had 143 cases, while the one which accounted for the fewest had 297 cases. One battalion in the former regi-

ment had only 12 cases, whereas one battalion of the latter had 154 cases. Since the first regiment had by far the more difficult combat assignments, it is apparent that the difference in incidence of psychiatric cases was based on a difference in leadership effectiveness.

The supporting role of the medical detachments is also an important factor in maintaining the combat effectiveness of a unit. The aid stations should be kept as far forward as possible, so that the personal influence of the battalion surgeon can make itself felt where it is needed most; there should be a policy of not evacuating farther any cases which can be treated in a more forward installation; and the medical criteria for evacuation should be strictly maintained. Without the active cooperation of forward medical personnel, it is almost impossible to do an effective job of minimizing loss due to psychiatric disability.

In periods of intense combat, the facilities of the clearing station are taxed by large numbers of psychiatric patients. Provision should be made for expansion of these facilities, in terms of personnel and equipment. The basic factor in treatment is the provision of adequate personnel to insure that every patient receives personal attention.

Continuous rest camp facilities, because of their morale value, can be an important aid in psychiatric prevention.

The need for reassignment of men during combat has been most apparent, and a flexible method of providing for such reassignment should be ready for use. The simplest method during combat is to give the division classification officer the authority to make reassignments on the recommendation of the psychiatrist. In postcombat periods, screening and reassignment can be carried out by a board of officers, as suggested previously.

PSYCHIATRIC TREATMENT IN COMBAT

There are basically two schools of thought on psychiatric treatment in combat. One believes in appropriate psychotherapeutic intervention to provide emotional catharsis and to recover amnestic memory losses; the other, that recovery is essentially a function of social support, and that any kind of psychotherapeutic intervention is contraindicated.

The model of psychotherapy in the Pacific was developed by Lt. Col. (later Col.) M. Ralph Kaufman, MC, South Pacific Area neuropsychiatric consultant, who found that hypnosis could be used to allay fear and its symptoms quickly, blocking out frightening external realities, such as the sound of gunfire. The psychiatrist developed a skill in reviving details of the traumatic combat experience, thus allowing free ventilation of affect, and restoring memory losses which might cause the soldier to forget his own identity, or to become confused or mute. In this condition, men are highly suggestible, seeking protection, and an anaclitic relationship to the physician as a nurturing, supportive, loving figure. Hypnosis was achieved

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through suggestion or by the injection of Pentothal Sodium (thiopental sodium) or Sodium Amytal (amobarbital sodium).

The approach which considers any kind of psychotherapeutic intervention contraindicated is based on the conviction that the major source of ego protection in combat is derived from the soldier's small group unit, and ego reintegration is rapidly achieved on the soldier's return to his original duty. Providing a disturbed soldier with any support other than that of his original group or of a substitute in the group situation of the clearing station is held to be self-defeating. Particularly is this so if the soldier is offered the opportunity for identification with the psychiatrist through any form of psychotherapeutic intervention.

The writer did not see the kinds of confused disorganized reactions described by Colonel Kaufman and others, except for brief intervals as men first came into the clearing station. After sedation with Sodium Amytal by mouth, which was used routinely at all levels of division medical service for anxiety reactions, the soldier was expected to reintegrate and be fully recovered within 24 to 48 hours, and usually did. Where more time seemed to be needed, men were not kept in the clearing station but sent back with a note to their own kitchen units where they could be held for another day or two before returning to combat.

Despite instructions to the contrary, a few soldiers, early in the campaign, were given injections of morphine at the battalion aid station; these men showed excessive reactions of excitement and confusion, but they were the exceptions. Such cases no longer appeared after the practice of using morphine was discontinued.

The clinical pictures presented by soldiers with psychiatric combat conditions varied a great deal. Different descriptions came from different geographic areas, and from different units within the same area. Also differences were often noted within the same unit at different times and under different circumstances. How to evaluate these differences presents a knotty problem in psychopathology and clinical course. An impression shared by the writer with other observers is that the clinical picture, as the soldier's response to anxiety, is influenced in its range and severity by the depth of the ensuing regressive process. The degree of ego disorganization, in other words, influenced the clinical picture; ego disorganization, in turn, was not simply a function of individual pathology but rather the interaction of the latter with the social situation, particularly as understood in terms of morale.

MAJOR MORALE PROBLEMS

For one reason or another, a number of divisions turned up with major morale problems. Examples are the 24th and the 43d Infantry Divisions. The 24th Division had been in Oahu at the time of the Japanese attack on

Pearl Harbor, and the men of the division believed they had been made scapegoats for a situation over which they had had no control. They were taken out of their comfortable barracks and put on more or less permanent bivouac in the swamps. Shipped out, they expected to go directly into jungle combat but instead went through a series of moves in Australia, finally reaching Goodenough Island. At each move, the stigma of the Pearl Harbor attack still seemed to cling to them. There was a great deal of psychiatric illness during this precombat period, and an unusual amount of homosexual practice. A high rate of psychiatric combat reactions occurred with the division's first fighting experience.

The 43d Infantry Division had an unusually high rate of psychiatric reactions in the New Georgia campaign, in July 1943, involving almost 10 percent of its total strength. The pattern of admission of hospital patients suggested a process of contagion within and among units, with "mass" breaks by some small groups. The number evacuated from each company or similar unit was found to be in direct proportion to the number of unit leaders evacuated, underlining again the paramount importance of qualified combat leadership in maintaining morale and preventing combat disturbances.

Both the 24th and the 43d Infantry Divisions performed well in subsequent combat experiences after they were reconstituted with replacements, and after adequate morale and combat training measures had been introduced.

The problem of homosexuality was not conspicuous in most combat divisions. There were undoubtedly a great many homosexuals throughout the military services, but, for the most part, they carried out their assignments conscientiously and exercised sexual restraint. In the 38th Infantry Division, four or five men were referred to the psychiatrist for making unwelcome homosexual advances. The routine of management was to assign them to another regiment, and in each instance, this was the last that was heard of the case. After the Japanese surrender, there was a slight increase in homosexual activity (as well as in drinking, and in sexual pursuits in general) in the division, but not enough to cause concern.

POSTCOMBAT RETRAINING

As the fighting in Luzon began to subside, attention was directed to retraining combat divisions for the then still anticipated invasion of Japan. In the 38th Division, analysis of the problem was carried out by a group consisting of the surgeon, the training officer, and the psychiatrist. It was decided that the chief problems requiring consideration were psychological, and were related to three relatively pervasive situational fears: (1) a fear of night fighting, (2) a fear of body contact in combat, and (3) a fear of

physical depletion, or "giving out." A training program to counter these situational fears was decided upon, and established by a series of directives:

1. Training Memorandum No. 9, 9 July 1945, subject: Psychological Training.

2. Psychological Training Aid No. 1, 17 July 1945, subject: "Battle Course" Syllabus for Regimental Medical Officers.

3. Psychological Training Aid No. 2, 6 August 1945, subject: Combat Leadership.

CONCLUSIONS

The history of division psychiatry in the Pacific is a saga of early confusion, uncertainty, and a lack of understanding of psychiatric combat problems, succeeded by a rapid growth of sophistication in the knowledge and skills which were needed to reduce the problem to manageable proportions.

When the War Department issued its directive on 9 November 1943, providing a position in each combat division for a psychiatrist, there were three divisions in the Southwest Pacific Area, and none had a psychiatrist. In 1944, seven more divisions, of which three had psychiatrists, moved into the area. Seven more divisions arrived in 1945; four of these had psychiatrists. By the end of the war in the Pacific, there were thus 17 divisions with seven psychiatrists among them. Nevertheless, even in divisions without psychiatrists, principles of management of psychiatric casualties had been universally disseminated, and combat reactions were being handled with appropriate measures by medical and line officers.

It had become clear that the management of psychiatric combat reactions did not require a high level of psychiatric competence, but was rather a function of command and leadership. This, in turn, was expressed through a policy of treatment of the individual casualty, combining personal concern for a disorganized human being with firm medical support to restore his integrity, and allow him to return rapidly to the socially supportive situation of his own unit.

The major functions of the psychiatrist in the division were essentially consultative, educational, and policymaking. He was also in a position to identify factors contributing to poor morale, and to analyze general sources of anxiety.

Finally, an infantry division is a community with its own institutional forms, processes, and traditions. As such, it provided the psychiatrist with early experience in the development of community mental health programs, with their emphasis on a population orientation, psychiatric prevention and control, and the influences of social support experiences for the protection of individual psychological function.

CHAPTER XVIII

Tenth U. S. Army

Oscar B. Markey, M.D.

The Tenth U.S. Army was activated on 20 June 1944, at Fort Sam Houston, Tex., for a specific military mission in the Pacific, and arrived at its overseas headquarters at Schofield Barracks, Oahu, Hawaiian Islands, in August 1944. This Army was under the command of Lt. Gen. Simon B. Buckner, Jr., a traditionally courageous military man who enjoyed the prospect of an all-out battle of large proportions. General Buckner's personal courage was determined and exciting and was symbolically expressed when he insisted, for example, that all his officers complete a minimum of mountain climbing experience on Oahu. The psychiatric evaluation offered when an appreciable number of officers could not complete this assignment tended to disturb the general; he could not understand how any military man of appreciable rank could be excused for any form of fear. That archaic fears of mountain climbing can indeed paralyze even the hardiest men was hard for the general to accept, and he, therefore, attempted initially to override the recommendation to excuse the officers so involved. Eventually, he had a greater understanding of the situation, but this comment on his earlier attitude is made to emphasize the typical resistance a military leader has against any show of personal fear among his men.

In the earlier campaigns in the Pacific, a great deal of psychiatric disability had been evident, and much had been learned by the psychiatrists involved in those experiences. They had become military-thinking physicians who had learned the lesson that soldiers needed to be helped to be useful, not just comfortable, and that maladjustments among individual soldiers inevitably affected the morale of other men. The Tenth U.S. Army surgeon encouraged the POA (Pacific Ocean Area) consultant in neuropsychiatry, Lt. Col. (later Col.) M. Ralph Kaufman, MC, to take every advantage of the psychiatric experience of the earlier Pacific operations. Colonel Kaufman had enjoyed a vigorous and exciting experience in these earlier campaigns and was fortunately available early in the planning period. He was personally aware of the professional personnel who had been directly involved in the psychiatric care of the soldiers. Thus, he was extremely helpful in discovering and arranging for the proper assignment of the outstanding neuropsychiatrists who had served in the South Pacific and Southwest Pacific Areas.

During preparation on Oahu for the Tenth U.S. Army's mission, efforts were made to bring an intimate influence on the two other major services

in the surgeon's office, medicine and surgery, and contacts were made with the units assigned to the Tenth U.S. Army. An effort was also made to predict which types of soldiers might adjust best in a military campaign. Toward this end, the personal and military history of about 1,000 enlisted men in Army headquarters was examined, and the group Rorschach test was applied as an objective means of evaluating the military usefulness of these men (p. 656).[1]

Colonel Kaufman, appreciating the importance of an ongoing relationship with line officers and enlisted men, vigorously pursued a program involving many related services. Thus, the information and education program, the chaplains, and the Red Cross staff were included in the overall psychiatric plan. A number of line officers, including General Buckner's aide, and allied professional officers volunteered to participate in discussions at regular meetings with organized groups of enlisted men. The purpose was to learn something of the attitudes prevailing in the headquarters, how to deal with viewpoints which were essentially emotional or based on limited availability of military facts. It was possible to help large groups of men to become aware of their own feelings and handicaps which, sometimes, resulted from frustration and a common tendency to project blame. Ventilation was freely encouraged in the belief that frankness and creative listening would deepen the sense of mutual obligation and trust, so necessary to every individual in such a large effort. Although no objective assessment of the results of these efforts can be made, it would seem reasonable to suggest that voluntary acceptance of such opportunities had a favorable effect on the morale of men at headquarters in anticipation of the forthcoming military mission.

PSYCHIATRIC PREPARATION FOR THE CAMPAIGN

Early in the fall of 1944, announcement was made that Formosa was to be invaded, and all were soon engaged in intensive studies of every aspect of this challenge. This embraced the use of the specialists who had knowledge of the history and culture of life on the island. The principal concern was, of course, the military nature of the problem. There was uneasiness because it appeared that the best military approach to Formosa was on the mountainous eastern side, because the western approach involved exposure to the Japanese forces on the mainland of China.

Whether or not the seizure of Formosa was firmly contemplated, or the plan possibly offered as preparation for the real target to be announced later,[2] everyone benefited a great deal from the intensive study brought

[1] Markey, O. B., and Zisson, M. M.: A Psychiatric Screening Aid for Pre-Combat Troops. Am. J. Psychiat. 103: 377–380, November 1946.

[2] There is no need to speculate on this—the plan was genuine. *See* Smith, Robert Ross: Triumph in the Philippines. United States Army in World War II. The War in the Pacific. Washington: U.S. Government Printing Office, 1963, pp. 3–17.

to bear upon the project. There was some relief when the official word came that the target had been changed from Formosa to the Ryukyu Islands. The relief was quickly lost when the nature of the new military objective became better known. Two main psychiatric factors were soon apparent. The first stemmed from the realization that this assault was to be on the very vestibule of Japan. The second was fear of an unknown terrain, where poisonous snakes were reputed, over the years, to have killed thousands of the natives. No military venture can be undertaken without personal and military risks involved, and the conditions in the Ryukyus were not any more harrowing than might be typical of any other battle setting. The psychiatric plan for the Okinawa invasion included approach to these special emotional hazards. There was some beginning awareness, also, of the stepped-up activity of the kamikazes who, as it turned out, sorely tried the courage and resourcefulness of U.S. troops in the opening phase of the Okinawa battle.

Visits to units in the various areas of the South Pacific and Southwest Pacific Areas helped to clarify the psychiatric plan. Careful examination of personnel records helped locate the few trained psychiatrists and medical officers with psychiatric learnings who were assigned to units outside the Tenth U.S. Army command. It was no easy task to arrange for the transfer of some of these men, because replacements could not be easily found and offered.

The original psychiatric plan, prepared by the POA neuropsychiatric consultant and the Tenth U.S. Army consultant in neuropsychiatry, was based, essentially, on SAF (Seventh Air Force) Circular No. 176, 20 October 1943. It included the establishment of a neuropsychiatric hospital to be staffed largely by psychiatrists with combat experience. On 20 December 1943, Colonel Kaufman, in a report to Col. (later Brig. Gen.) Earl Maxwell, MC, Surgeon, USAFISPA (U.S. Army Forces in the South Pacific Area), recommended the organization of mobile neuropsychiatric teams; this recommendation was followed in the actual preparation for the invasion of Okinawa.

Many discussions were held on the psychiatric treatment plan for this operation. The plan, proposed by Colonel Kaufman in a memorandum to the Surgeon, POA, follows.

1. Experience has demonstrated that the most effective method of handling psychiatric problems in combat is to set up treatment facilities as close to the frontlines as is practicable.

2. Treatment and triage should begin at the battalion aid stations and should be made available at every echelon rearward. There should be two streams of patients constantly moving, one in the direction of duty and the other in the line of evacuation.

3. The proposed plan for handling of neuropsychiatric casualties will be dependent to some extent on the availability of a general (NP) hospital. The basic setup should embrace treatment and triage at all echelons from the battalion aid station through

the clearing company, field hospital, conditioning center (corps clearing company) base hospital, and/or an evacuation and holding center.

4. In the battalion aid stations, the treatment and triage will be handled by the battalion surgeons. Depending on the tactical situation, it is planned to hold patients for a maximum of 24 hours. Mild sedation and rest will be employed. The type of cases to be treated here will be those of physical exhaustion and mild anxiety.

5. The clearing company should treat patients with moderate battle reactions, severe exhaustion, moderate anxiety symptoms, some startle reaction, with an absence of amnesias. These patients should be returnable to duty within 72 to 96 hours. Treatment: Sedation for 48 hours, psychotherapy, and symptomatic treatment, under the direction of the division psychiatrist.

6. Field Hospitals. Each clearing company will be backed up by a field hospital which should have a psychiatric section of 50 beds. Treatment at this echelon will consist of heavy sedation, pentothalization (narcosynthesis), psychotherapy, and symptomatic treatment. Patients who can return to duty in 5 days will be treated here. Personnel will consist of one psychiatrist (2 if available) and four enlisted men (8 if available).

7. Patients who require up to 10 days for return to duty, after treatment, will be sent to the rear to a conditioning center (corps clearing company) for rest and conditioning. The personnel here should consist of a medical officer and enlisted men.

8. A holding and evacuation center for screening and evacuation will be utilized for all NP patients to be evacuated from the combat zone.

9. When the general (NP) hospital moves into the rear area of the combat zone, all patients for evacuation will be transferred through it. Should such a hospital not be available, the general hospital neuropsychiatric sections will take over this function.

10. Personnel.

a. The battalion aid station should utilize its own personnel.

b. The division psychiatrist should be stationed in the clearing company. He will then be in a position to function as therapist and supervise battalion aid functioning and also maintain liaison with the NP section of the field hospital.

c. The field hospital should have one psychiatrist and four enlisted men assigned. Should a general (NP) hospital be available, two psychiatrists and eight enlisted men should be assigned from its personnel. It is visualized that six such field hospital units will be functioning which means that six psychiatrists and twenty-four enlisted men will be needed (double that number if available). A psychiatrist should be available for the evacuation centers. The Army consultants and the POA consultant in neuropsychiatry should be mobile and in a position to supervise and give assistance in all echelons.

The Surgeon, POA, approved this plan and authorized Colonel Kaufman to coordinate it with the Surgeon, Tenth U.S. Army. When this was accomplished, Colonel Kaufman, by memorandum, again reported to the Surgeon, POA, as follows:

1. Col. [Frederic B.] Westervelt [MC, Surgeon, Tenth U.S. Army] concurs in the proposed psychiatric plan. The details will be worked out in collaboration with his Consultant Psychiatrist.

2. The following personnel are recommended for the psychiatric teams. One psychiatrist should be assigned on detached service to each field hospital that is to participate in the operation.

Maj. Howard P. Gilbert ---------- 29th General Hospital
Maj. Lindsay E. Beaton ---------- 48th Station Hospital
Maj. Gilbert L. Sandritter ---------- 147th General Hospital

Maj. Kenneth G. Rew ---------- 218th General Hospital
Capt. David Crocker ---------- 39th General Hospital

3. Four Medical Department enlisted men from each field hospital should be trained in psychiatric techniques and assigned to the psychiatric teams.

It should be noted that there is no mention of the use of hypnosis in this plan. Colonel Kaufman was concerned that, with the general attitude of medical and line officers to the use of hypnotic therapy, the mere mention of hypnosis might jeopardize the whole treatment program. Actually, not until the neuropsychiatric team reached the staging area in Leyte did he feel free to mention the use of this form of therapy. Since this team, consisting of Maj. Lindsay E. Beaton, MC, Maj. (later Lt. Col.) Howard P. Gilbert, MC, Maj. Charles A. Smith, MC, and Capt. Abraham I. Jackman, MC, had never used hypnosis in either civilian or military practice, they were somewhat apprehensive. They were, however, assured of its simplicity, and as a result, hypnosis was used widely and effectively.

A description of the psychiatric plan, as it eventually worked out in the field, is contained in the following memorandum of 30 April 1945, from Colonel Kaufman to the Surgeon, XXIV Corps:

NEUROPSYCHIATRY

1. The relatively large percentage of neuropsychiatric cases in this campaign, approximately 13.3 percent of all admissions, may be attributed in part, to the concentration of artillery fire, which many of the troops faced for the first time in the Pacific. The correlation was at times so close, that one could tell from the admissions as to which unit was under fire.

2. The setup for handling the problem was as follows:

a. The division psychiatrist functions in its clearing station and at the division rest camp.

b. The field hospitals, 31st and 69th, had a psychiatrist from the psychiatric team, attached for duty. All patients with combat fatigue were sent to his section. This served to take a load off the other sections in the hospital and allowed for more intensive therapy.

3. The therapeutic program depends for the most part, on psychotherapeutic measures. The use of sedative is kept at a minimum. Hypnosis for the quieting of agitated patients proved highly successful. The patients were put to sleep on admission, at times, in the receiving tent.

a. Hypnoanalysis and narcosynthesis are employed when indicated. Group psychotherapy, recreational activity, also play an important role.

b. The attempt is made to create a therapeutic atmosphere throughout the psychiatric wards.

4. The opening of the 82d Field Hospital as an all psychiatric hospital enables the concentration of all psychiatric cases and psychiatric talent in one place. The program worked out for treatment in this hospital shows every promise of being of great value.

5. The results obtained are gratifying. Of all acute cases treated in one hospital, approximately 90 percent have been returned to division duty. The percentage in the other hospital will be approximately the same. When the psychoses and organic cases are deducted, it seems probable that practically all patients with acute combat fatigue reactions can be returned to some form of divisional duty.

6. The psychiatrist attached to this headquarters initiated and directed the program. He was later joined in this by the psychiatrist from the Tenth Army.

The mobile neuropsychiatric team, just mentioned, was brought into being on Oahu, on 1 February 1945. The members of this team played a major part in the neuropsychiatry course attended by medical officers of the various units assigned to the Tenth U.S. Army. Four 3-day courses, each of about 23 hours, were offered to groups of 15 to 20 medical officers. The dynamics of combat reactions, the nature of common psychiatric disorders in the field, and the newest treatment methods were covered, along with case demonstrations and detailed references to individual treatment. Officers who participated were from the 233d General Hospital, the 75th and 76th Station Hospitals, and the 74th, 75th, 76th, and 86th Field Hospitals. Other medical officers who attended included neuropsychiatrists working with other units on Hawaii and participating as members of the faculty, or observers.

COMBAT EXPERIENCE

The first echelon included two psychiatrists—Major Gilbert took part with the 77th Infantry Division at the 36th Field Hospital, in the Kerama-Rettō assault on 27 March, before the Okinawa landing (map 31), on 1 April 1945, and Colonel Kaufman landed with the first waves on Okinawa, on 1 April. However, integrated psychiatric facilities did not begin to operate until the second or third of April, when Major Beaton opened the neuropsychiatric service at the 69th Field Hospital. Shortly thereafter, Captain Jackman initiated the neuropsychiatric service at the 31st Field Hospital. Major Gilbert rejoined the other members of the mobile psychiatric team shortly after the Kerama-Rettō and Ii-Shima aspects of the operation were completed. The original recommendation for establishing a neuropsychiatric hospital was carried out when the 82d Field Hospital was designated as the neuropsychiatric center and opened for admissions on 25 April 1945. By 27 April, the patients remaining in the 36th and 69th Field Hospitals were transferred to this center. The 82d Field Hospital remained largely a psychiatric facility until about 1 June 1945.

The psychiatrists were active in the field through (1) consultations with medical and line officers in acute problems, (2) conducting active rounds with the surgical and medical consultants, and (3) frequent contacts with line officers of all ranks, including the Commanding General, 7th Infantry Division, Maj. Gen. Archibald V. Arnold. An example of the effectiveness of this service arose out of a visit by Colonel Kaufman and Major Beaton to Col. John M. Finn, Inf., Commander, 32d Regiment of the 7th Division. This regiment had built up an admirable military record, largely through the exceptional leadership of Colonel Finn, who was then only 29 or 30 years of age. Tensions had been developing because of the

MAP 31.—Okinawa.

overdrive of Colonel Finn to convince his men of his fearlessness. It was promptly helpful to him when he learned that fear is normal and need not be fought or denied, or covered up by unnecessary exposure to danger. Another example was contact with a hypomanic line major who was able to carry on his assignment through direct psychiatric help.

The physical nature of Okinawa offered psychiatric advantage, in that there was scant room for a rear echelon no more than a few miles beyond small arms fire. In the first phase of the battle, when Japanese artillery

was very active, this rear was not present. When the "eyes" of their artillery (their Air Force) were lost, fear of enemy artillery lessened because the Japanese could not accurately fire upon targets. In contrast, the American artillery could pinpoint its targets with the help of liaison planes and radio communications. This brought about the final destruction of Japanese artillery.

In the initial psychiatric plan, one of the chief principles laid down was that treatment should begin as near the combat zone as possible. This prevented the insult to morale which relief from immediate danger often carried. It kept the soldier in a kind of combat-ready state, in contrast with the tendency to "give up" when the immediate environment was free of battle reminders. The simplest forms of treatment were possible and effective (reassurance, simple physical comforts related to hot baths and meals, and uninterrupted sleep, sometimes with sedation). The limited size of Okinawa, of the island itself, minimized the possibility of relief from air raids and flak. The field hospitals, thus, were 2 to 4 miles away from the frontlines and in more or less immediate proximity to U.S. artillery batteries. Psychiatric casualties were, therefore, only relatively free of battle reminders throughout the period of their psychiatric illness.

Early in the campaign, when the designated field hospitals had become overcrowded and were under extreme pressure to care for surgical casualties, the 82d Field Hospital, as already stated, was converted to an all-psychiatric treatment center. At this hospital, except for the 126 patients who were suffering from self-inflicted wounds and were assigned to the surgical service, psychiatrists were responsible for the care and milieu of the neuropsychiatric center. The mobile psychiatric team made it possible for early movement of psychiatrists to all critical areas, and eventually, their coordinated work was centered in the 82d Field Hospital (fig. 66).

In the earlier weeks of April, a psychiatrist was assigned to each of the three field hospitals. The three psychiatrists, including the POA and Tenth U.S. Army consultants in neuropsychiatry, were free to supervise and take part in ameliorating crises. Each division found it feasible to create rest camp facilities for mild cases of exhaustion and anxiety reaction. This helped to minimize the hospital atmosphere and to maintain a military setting. Though the quick effect of relief from battle pressure was to reduce tension and promote relaxed attitudes, every effort was made to keep the men aware of their military usefulness. This factor strongly influenced the decision whether men should be hospitalized or kept in the battalion aid areas, collecting companies, or rest camps. It also reduced the period of stay in the hospital proper. Everyone tried to bestir an attitude of early recovery and return to full duty.[3]

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[3] (1) Report of Neuropsychiatric Observer [Lt. Col. M. R. Kaufman] in the Okinawa Operation—5/16/45. (2) Kaufman, M. R., and Beaton, L. E.: A Psychiatric Treatment Program in Combat. Bull. Menninger Clin. 11: 1–14, January 1947; correction 11: 76, March 1947.

FIGURE 66.—Capt. Abraham I. Jackman, MC, giving an introductory lecture to new patients, 82d Field Hospital, Okinawa, 19 May 1945.

The psychiatrists and their staffs had learned that breakdowns occur despite, rather than lack of, individual courage. Military commanders tended to believe that breakdowns accompany or result from common cowardice. It was important, therefore, to help line officers achieve a feeling of compassion for men who were no longer able to endure combat stress. It was submitted that men can choose to run away or to fight, and that escape can be subtle, not a frank runaway as would occur in the case of the coward. Only when the desire to fight was exhausted would "combat fatigue" result. At times, covert evidence of flight would be produced, in the form of partial or complete amnesia. Such symptoms might be manifest by the soldier's forgetfulness of his own identity, by confusion as to who he and others might be, or by becoming mute. In a fulminating battle reaction, this unconscious defense could be met directly and early through techniques which helped to remove the surface defenses and, thereby, to free the soldier of his fear or panic. The method of choice was through hypnosis in which the psychiatrist endeavored to produce a reenactment (abreaction) of the battle experience.

Alert to the circumstances of the battle, the psychiatrist was able to

develop skills in reviving details of the experience and on estimating the amount of emotional discharge which the soldier could be expected to tolerate. Many other clinical manifestations developed which were primitive and vegetative (tremors, palpitation, diarrhea, startle reaction). Regression toward comfort, reassurance, and security was shown in almost childlike reactions, which placed the therapist in the role of the parent. Colonel Kaufman pointed out that in this state men are highly suggestible and seek the protection "that is desired by the child that is afraid of the dark." [4] The parent-child relationship was reenacted in a hypnotic approach. In a sense, an anaclitic type of therapy was applied. The physician was loving, attentive, sure of himself, and firm.

The psychiatrists found that the more agitated patients were more susceptible to hypnotic reassurance. Contrary to earlier reports on the importance of sedative drugs at such a time, the soldier was generally made comfortable and soon entered restful sleep. By suggestions, which blocked out the frightening external reality, such as the sound of gunfire, hypnosis quickly allayed fear and its symptoms. The therapist could reassure the soldier through his own courage and self-confidence. This represented the initial phase of hypnotherapy and was sometimes sufficient to bring about a full abreaction in some cases. Often, by the choice of the psychiatrist, either Pentothal Sodium (thiopental sodium) or Sodium Amytal (amobarbital sodium) was used to induce abreaction.

The traditional effect of the excitement of battle, where men protect each other against a known enemy, must have played a part in stimulating the psychiatrists themselves. Surely, the atmosphere of the wards could not have been one of expectant recovery, unless the psychiatrists and their staffs had incorporated this spirit. The high incidence of recovery was obvious to the sick soldiers, and the effects of recovery were quite contagious. Finding himself among many who had the same type of disturbing reaction reduced the soldier's feeling that he was unique or inferior. This encouraged spontaneous group psychotherapy, through free discussion of common experiences, and provided the opportunity to compare feelings and reactions.

The "mothering" period of treatment ended in 24 to 48 hours. Then men were encouraged to take part in group activities, to police their own wards, to act as litter bearers or ward attendants, and to assume fatigue duties requiring vigorous labor. This was all done voluntarily, as part of the team effort to bring about improvement in the immediate environment. Though not always true, many men soon became aware of the desire to return to duty, to rejoin their buddies and units. Sometimes, this desire was a manifestation of false courage. Occasionally, such men were cautioned to wait a day or two. Frankness and candor and avoiding false roles were encouraged through the psychiatrists' sleeping and living in the tent

[4] See footnote 3 (1), p. 646.

wards. An air of confidence enveloped the ward attendants and the patients, as well as the medical officers. Evacuation was seldom recommended or carried out, thereby reducing the possibility of secondary gain through illness. It was as if the one way out of the hospital was back to duty, rather than a retreat to the comforts of a hospital danger-free environment.

Many more patients would have reached the psychiatric wards if rest camps had not been available. The first of these, of the 7th Infantry Division, began to operate on 13 April, soon followed by rest camps of the 27th, 77th, and 96th Infantry Divisions. Men sent to the camps suffered from simple exhaustion and mild to moderate anxiety states. Treatment by the psychiatrist was direct and frank, through reassurance and manifest friendliness and by the example of sharing the limiting environment. More or less heavy sedation was seldom necessary. In rest camps, men were on a duty status and had the advantage of remaining with their military units.

THERAPEUTIC FORCES

The relationship between the patient and the physician was always considered to be the primary recovery force, regardless of the methods or devices used. Hypnosis and suggestion succeeded only where the therapist was skilled, sure of himself, and capable of establishing a quick positive transference. Gentle reassurance and praise, along with well-supplied physical comforts that equated "mothering," were often as effective when offered by female nurses, who first came on duty a week after the neuropsychiatric center was opened. The fundamental responsibility for treatment was in the hands of the psychiatrist, particularly when narcoanalysis and hypnotic suggestion were applied, for there was danger of producing personality fragmentation through too quick a liberation of primitive defenses. Though the aim was indeed to bring about an immediate recovery of military usefulness, through dealing with the immediate psychic trauma, there was an awareness of the precombat personality of the soldier and a concern for his future personal, as well as military, stability.

Without psychotherapy, amnesias did not disappear completely, agitated states often persisted or turned into severe depressions, and hysterical conversions became fixated, as in the tremors of the "killing arm." It was found that fulminating reactions were easier to resolve than slowly developing syndromes, which were less responsive to hypnotherapy. Success with the hypnotic approach was always dependent on the fundamental transference phenomenon. Except for a small number of true psychoses, patients quickly recovered normal orientation and their previous affective pattern. Even where patients were evacuated, hypnotherapy helped bring them to a better condition and a greater readiness for treatment in rear areas. It reduced the unconscious tendency to gain advantage by illness.

The marked clinical improvement, often manifest by the time the

patient was "awakened," was corroborated by objective findings of changes in the individual Rorschach protocols. During the active phase of combat, Majors Gilbert and Beaton performed Rorschach testing on patients with acute combat anxiety reactions. Simple protocols were obtained, consisting of evaluation of the 10 cards, without prolonged inquiry or testing the limits. The customary Rorschach technique was thus changed in the interest of time. Responses were scored by the prescribed method.

The purpose of this brief research was to determine whether or not hypnotherapy produced any change in the Rorschach protocol. Records were taken before and after completion of successful hypnotherapy. Twenty-five patients were examined in this fashion. The results were interesting, particularly in view of the statement sometimes made that the Rorschach patterning of an individual is stubborn and rarely moved by any therapeutic experience. It was found that Rorschach records before hypnosis and during the phase of acute combat anxiety were restricted, with few human movement responses and particularly a paucity of responses that could be subjectively interpreted as having any relationship to the combat experience. For example, there were very few pure color replies of a nature that might designate explosions, blood, and the like.

After the successful therapeutic effort had been completed, the Rorschach record showed a rather startling change, in that these apparently previously repressed, responses now emerged. These treated men were able to produce many personal references to the cards and many responses in the nature of explosions, blood, and so forth. This material was interpreted at the time as an actual Rorschach proof of the therapeutic process in bringing back to consciousness some of the emotionally charged combat memories which had been repressed.

The voluntary exchange of comments among patients provided one aspect of group therapy. In addition, a planned program was put into effect. Ambulatory patients, within 24 hours of admission, attended a group session led by a psychiatrist. Explanation was given for common symptoms, and the men were encouraged to ask questions. Cases were acknowledged to be individualized, and yet the symptoms were shown to be "universal." Some ward officers were less sure of themselves and tended to be too controlling. Others were less obtrusive and apt to guide the discussion. Results were good as long as the leader felt sure of himself in the group situation.

In an army setting, the several professions involved in a psychiatric approach were seldom fully available, so the chaplain and the Red Cross worker often took on treatment responsibilities of considerable importance. They contributed at all times to the soldier's group life and were available for individual contacts. The information and education officer was also very important in that he had technical skills with which to motivate the soldier. The special services officer afforded group entertainment outlets, which were less apt to be individualized than those offered by the Red Cross worker.

In this campaign, the Red Cross tent was always cheerful, a good setting in which to write letters, and filled with healthful diversions, such as handwork materials, newspapers and magazines, and simple competitive games (figs. 67–70). In all of these contributions, of course, the personality of the worker, in terms of ability to get across to the tired, sometimes disturbed, soldier, was the nuclear treatment factor.

In the 82d Field Hospital, chaplains and Red Cross workers were welcome at the daily clinical conferences and treatment demonstrations. This helped them to understand the sick soldier better, to become acquainted with the techniques used in helping him, and to learn something of the limitations and possibilities of their own contributions.

There were instances in which the chaplain and the psychiatrist complemented each other, as when a soldier might deny all except religious support. Sometimes, too, the chaplain could recognize conflicts which were intrapsychic and inaccessible to his approach. Because chaplains were cloaked with little or no authority, they could, at times, detect morale factors more sharply and thus establish more intimate and sustained contacts with the troubled man than psychiatrists. In a democratic army,

FIGURE 67.—Lt. Betty J. Brown, ANC, and patients, in Red Cross gameroom, 82d Field Hospital, Okinawa, May 1945.

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FIGURE 68.—A Red Cross reading room, Okinawa, May 1945.

FIGURE 69.—Lt. Helen L. Hardy, ANC, playing a game of cards with patient recuperating from a bullet wound, 82d Field Hospital, Okinawa, May 1945.

FIGURE 70.—Red Cross rest area, Okinawa.

the soldier benefits greatly from the belief that he knows why he is fighting and what the general tactical situation is, and men gained a great deal of inner security through realizing they could speak out at Information and Education meetings. Perhaps this was as valuable as the content, which covered such subjects as "Why We Fight," "The Returning Soldier," "The G.I. Bill of Rights," and "Educational Opportunities for the Veteran." Sometimes line officers were available to carry on discussion, thereby emphasizing the continuity of relationship between the military and the nonmilitary professional staffs.

The 82d Field Hospital had functioned in all the medical and surgical services before being designated as a neuropsychiatric center. As in civilian practice, some of the medical officers readily absorbed the principles and techniques of treating the more benign psychiatric conditions, while others had difficulty getting away from a medical or surgical orientation.

RELATIONSHIP WITH LINE OFFICERS

In civilian life, the physician's plan of treatment must be acceptable to the patient or to his parents or to both. In a military setting, this is

much the same, except that the medical officer depends on command backing and protection. The line officer is responsible not only for the military readiness but also for the sense of well-being of soldiers. The psychiatrist seldom succeeded in helping a soldier unless his ideas were understandable and acceptable to the company commander. Thus, the psychiatrist had to learn to give advice that was largely utilitarian in the military sense. In other words, everyone appreciated that the soldier's inner sense of well-being was a desirable accompaniment of his military usefulness but that it could not, in itself, make him a useful soldier.

Where possible, especially when men were returned to duty, reports were sent along proper channels, with an explanation of the dynamics and treatment rationale in a given case. This was especially helpful where officers or fellow soldiers visited and talked with the attending physician. Every opportunity was sought to create an aura of welcome when the man returned to his unit. This was necessary in some areas where the idea had developed that a man who had "broken" emotionally had never been and never would be any good. The commanding general of the 7th Infantry Division was especially effective in offering opportunities to the psychiatrists to discuss problems of readjustment with the full complement of officers of two separate battalions.

DIAGNOSIS

War Department Circular No. 179, "Psychoneurosis—Methods of Recording Diagnosis," of 16 June 1945, was not used because it reached the surgeon's office after the campaign was over. The terms "combat fatigue" and "combat reaction," of this circular, were easily understood, though somewhat oversimplified. Not infrequently, an obvious psychosis was short lived and fully resolved in a relatively well integrated individual. The underlying competence of the soldier and the intensity and duration of the reality strain presented an individual equation in every case. The term "anxiety state" had too variable a meaning and could not readily be differentiated from the possibility that the condition had existed in the normal defenses of the individual long before the battle experience. Diagnostic accuracy was, therefore, very difficult to achieve.

It was equally difficult to decide on the effectiveness of the treatment program, because the nature of the battle situation changed in the second and third phases, the element of fatigue accordingly increased, and the simpler psychiatric disorders were more often effectively handled at the battalion and rest camp levels. Statistical references to each of the three phases bear this out.

Since every experience was expected to offer advantage in preparation for the next military operation, early plans included the use of films to demonstrate treatment procedures from the battalion aid station through

the rest camps and, more particularly, techniques used in the hospital setting. Originally, this was to include the use of sound equipment during and in battle itself, but the equipment failed to arrive and volunteers offered their help and facilities. Colonel Kaufman and Major Beaton were strikingly successful in thus depicting the dramatic therapy applied in the frequent acute battle reactions, which included partial or complete amnesias, paralyses, startle and panic reactions, depressions, overwhelming phobias, and various types of disturbances of consciousness (figs. 71–74). Some scenes showed how therapists, sometimes without aid of relaxing medication, were able to bring about full abreactions and quick ego recovery; in others, group hypnosis was shown.

With increased experience, the therapists were more and more able to do away with supporting sedative medication in favor of frank suggestion, sometimes with hypnosis and only occasionally to the degree of producing a trance (figs. 75 and 76).[5]

Mention can be made again of an objective study conducted at Tenth U.S. Army headquarters on Oahu. This was through the use of the Har-

[5] Personal communication to M. R. Kaufman, M.D., 23 May 1960.

FIGURE 71.—Patient hiding face in hands in fear of attack.

FIGURE 72.—Patient with "combat exhaustion," frantically seeking cover.

rower-Erickson modification of the group Rorschach test. About a thousand enlisted men were so studied and predictions were made that those who fell in the lower 10th percentile of ego stability would be likely to suffer battle casualties. These predictions were based on the test results and on the opinions of company commanders and other well-informed officers, so that the tests were combined with clinical impressions. Of course, the end of the war removed the possibility of a followup study when the Army was deactivated. A second phase in this study was to have begun with tests of selected campaign groups who were expected to take part in the already planned Kyushu operation, scheduled for November 1945.[6]

BATTLE EXPERIENCE

No significant difficulties arose en route from Pearl Harbor to Okinawa. Two interesting incidents reveal the tension which might have been considered "normal" as the troops left Pearl Harbor and awaited the order to make landings some days later on the Okinawa beach. The first of these

[6] See footnote 1, p. 640.

FIGURE 73.—Medical Detachment, 148th Infantry, assisting a combat psychiatric casualty.

gives some grudging respect to the propaganda radio broadcasts by Tokyo Rose. Though many of her predictions were inappropriate and futile, some were inevitably disturbing. When the convoy was about 2 days out, she broadcast something about large forces of the Tenth U.S. Army having shipped out for an attack on Okinawa. The security with which preparations were made had, presumably, been tamperproof, but this guess had to be respected anyway, and it did cause some uneasiness among the troops. Later, the troops were alerted, from time to time, to kamikaze attacks, generally by a chaplain, who would give a presumably firsthand report of the approach of such a plane. The helplessness of the men was compounded by mixed chagrin and relief when the chaplain would announce in excited relief that the plane had passed by the ship (one of the three LCV's [landing craft, vehicle] used during the war), in favor of other "game."

There had been some uneasiness because of the effect of the Battle of the Bulge, in December 1944. This reduced the tonnage available for troops and material transport, including an appreciable amount of medical and surgical equipment and drugs. Perhaps more seriously, it deprived the

FIGURE 74.—Medical Detachment, 148th Infantry, aiding a combat psychiatric casualty.

Tenth U.S. Army of the anticipated services of the battle-experienced psychiatrists and their ancillaries, who had been expected to transfer from the European to the Pacific theater.[7] Difficulties did arise before the final landing of the troops, through Japanese kamikaze attacks, but no frank psychiatric problems were directly attributed to this influence (fig. 77). Naval casualties, however, were high because of these attacks, and represented a great drain on military resources and courage of the personnel throughout the entire Okinawa battle, which officially lasted from 1 April to 22 June 1945.

In the first phase of the battle, which was arbitrarily said to have ended on 8 May 1945, striking success was achieved in terms of return to duty. About 15 percent of all hospital admissions were neuropsychiatric;

[7] The shipping tonnage allocated for Okinawa was not reduced on account of the Battle of the Bulge, and was, by any standards, generous. *See* Coakley, Robert W., and Leighton, Richard M.: Global Logistics and Strategy, 1943-1945. United States Army in World War II. The War Department. Washington: U.S. Government Printing Office, 1968, pp. 575–579. Nor is it evident that any of the planning for Okinawa contemplated redeployment of troops or psychiatrists from Europe.—A. J. G.

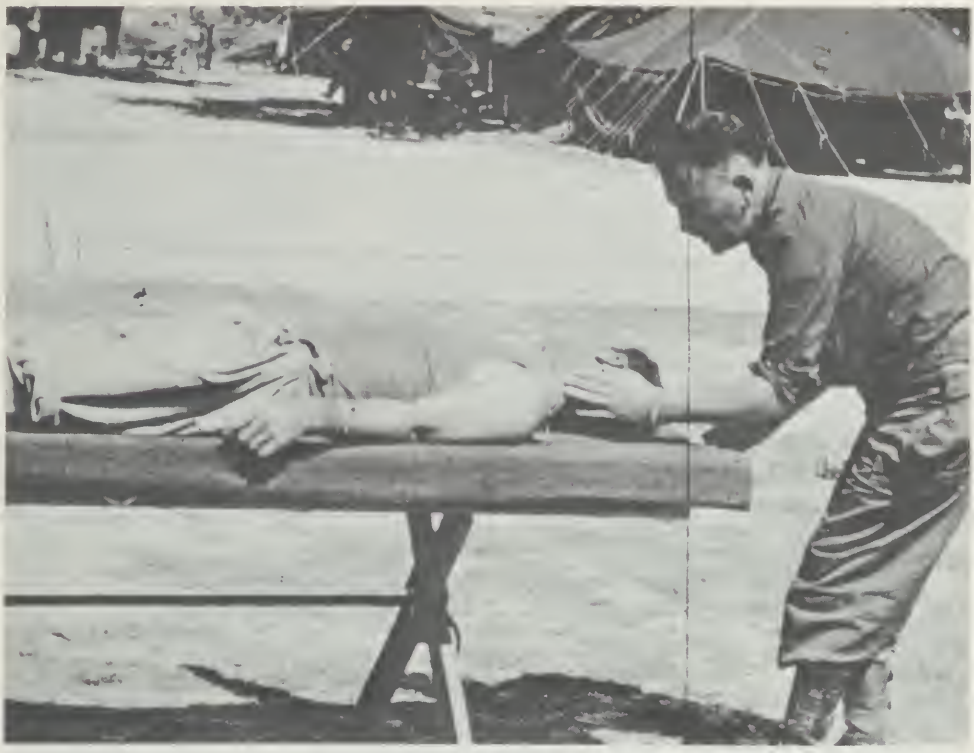

FIGURE 75.—Col. M. Ralph Kaufman, MC, inducing hypnosis.

83.68 percent of treated cases were returned to duty. In this connection, the second endorsement by Lt. Gen. Robert C. Richardson, Jr., Commanding General, Tenth U.S. Army, to Colonel Kaufman's report of 16 May 1945, is of interest:

TO: The Adjutant General, War Department, Washington 25, D.C.

1. As a rule reports of the character of the basic document would be handled in technical channels, but in view of the great importance which I attach to the successful experiment made at Okinawa for the salvaging on the battlefield of soldiers suffering from combat fatigue this report is being sent to The Adjutant General. It contains data which will enable the General Staff to pass judgments on any requests that may emanate from this headquarters for the support of this program.

2. Approximately 800 men out of 900 suffering from mental shock and combat fatigue were returned to duty. They were rehabilitated within sound of the guns and their mental equilibrium restored. The success of this experiment is of transcendent importance because it will salvage men, not only for immediate return to their units but by obviating demands on their part for postwar medical treatment at veterans' hospitals.

The second phase of the battle, from 9 through 29 May, was more virulent. The Japanese were still able to use heavy artillery, even if their "eyes" (air reconnaissance) had been blinded. It was during this phase that

FIGURE 76.—Col. M. Ralph Kaufman, MC, lighting a patient's cigarette after a hypnotic interview.

they made most effective use of their knowledge of the terrain, especially in the Shuri battle. They used the island caves tenaciously, even in the face of artillery and flame attacks. This was especially difficult for the marines, who were temperamentally better suited to attack in open field action. Infantrymen tend to be more patient and can tolerate being stymied to a better degree. It can also be suggested that a decline in the percentage of return of treated cases to duty (57.17 percent) may have been due, in part, to the greatly improved divisional facilities. Men suffering from relatively benign emotional difficulties were treated in the divisional areas, and many of them never reached the hospital. During this second phase, administrative evacuation was necessary, from time to time.

In the third phase, which was normally completed by 28 June, facilities were adequate for psychiatric treatment. Of the treated cases in this phase, 38.32 percent were returned to duty. It is probable that the decline in percentage of return to duty represented a change in the psychiatric problem

FIGURE 77.—"Them kamikazes, them bombs."

and was not a reflection of the treatment methods used. As the length of the battle increased and enemy resistance blocked any dramatic breakthrough, emotional and physical fatigue increased to a point of reducing the basic strength of the soldier. Few of the hospitalized men who had been returned to duty were seen during a second psychiatric breakdown. Less than 3 percent had been recorded by 16 June, and this figure would likely have reached 5 percent had it been possible to follow the careers of the men who had broken down through the rest of the military years.[8]

An analysis of psychiatric casualties evacuated to Saipan during the first 10 days of the Okinawa campaign was made by Lt. (later Capt.) Milton M. Berger, MC. More than 100 patients admitted to the 176th Station Hospital on Saipan were studied. The complete report follows.[9]

An analysis of the psychiatric casualties evacuated to Saipan for further treatment and disposition during the first 10 days of the Okinawa campaign results in findings which may prove of interest and value if considered prior to future campaigns. We interviewed and treated more than 100 patients admitted to the 176th Station Hospital with the diagnosis of "Combat Fatigue," a term used loosely to apply to practically all non-

[8] See footnote 3 (1), p. 646.

[9] Dr. Berger made this unpublished report available for inclusion in this chapter.

psychotic psychiatric casualties seen during battle breakdowns, which has been described previously in the numerous papers and will not be repeated herein.

There were three fairly specific groups of soldiers who comprised 95 percent of the patients seen by us. First, there was the group of soldiers, ages 18 to 20, who had been in the service 4 to 10 months and for whom Okinawa was their first campaign. These men were physically and emotionally immature, some small in stature, many with a paucity of hair on chest and face, had a history of one or both parents suffering from longstanding nervousness, dependency on mother, and stated they had been weaklings or nervous in childhood. Many stated they felt inadequately trained, were unable to express a real understanding of our reasons for waging warfare, and the majority of these served as infantry riflemen, the remainder with machinegun units.

The second group consisted of men, ages 20 to 32, who had served in at least three previous invasions in the Pacific theater of operations. These men had seen combat action on Attu and Kiska, 21 days; Kwajalein for 6 days; and Leyte for 110 days. These men all felt that their luck would not hold out indefinitely and that they would probably not pull through this campaign. These conditioned men had lost one or more close buddies in their previous 130 to 140 days of fighting. It is generally conceded that warfare in this theater is at great variance with that encountered in the European theater, and the stress and strain here is more costly both physically and mentally. The tactics used by the Japanese are unpredictable and are fantastically clever at times and grossly stupid at other times. This leads to the production of a chronic anxiety state which is present from the moment of invasion to the day security of the island is proclaimed (fig. 78).

FIGURE 78.—An "exhaustion" case. Patient, tense and anxious, biting fingernails.

There is constant vigilance required, with resultant tension, even after security day, because of the presence of small Nipponese units using the hills and caves and heavy undergrowth for hiding places in the daytime and coming out at night to harass, forage, and kill without rhyme or reason.

The third group consisted of men, ages 30 to 38, who had not served in previous campaigns. Their length of service varied from 6 months to 3 years and they had been previously classified and working in all types of Army occupations except as infantry riflemen. In the vast program of reassignment which has been actively going on in the States during the past 8 months, these men had been transferred to the infantry as their own branches of domestic service became obsolete. These men did not feel physically capable of keeping up with the younger men in their companies, and entered the campaign with marked feelings of resentment and bitterness toward war itself and the Army system which had placed them up front as combat riflemen. Their hostility was not directed toward the enemy. Most were married and had one or more children.

In all three groups, a marked fear reaction was present prior to and during combat. This was accentuated after the comparatively easy landing by the startling accuracy and quantity of enemy artillery, knee mortars, and other weapons which they later encountered. These frequently resulted in our troops being pinned down from 5 to 10 hours or longer in one location, thus producing an overwhelming feeling of hopelessness and a desire to escape if possible, at any cost.

Our conclusions from the above are:

1. That obviously immature young men with 4 to 10 months of Army service should be subjected to intensive training and a supermorale-building program, and more individual selection prior to assignment as infantry riflemen.

2. That men who have participated in three invasions against Japanese-held areas should be given a psychiatric reevaluation and, if necessary, a tour of noncombat duty of individually determined duration prior to being recommitted to combat.

3. That it appears, 140 days should be reflectively considered as the approximate threshold for the number of days of actual combat to be expected of frontline troops in this theater. Psychiatric casualties should be expected in increasing numbers after such a period.

4. That in our opinion, older men, married, with children, are not suitable for use as infantry riflemen in the majority of such cases.

Very little reliable information is available on the actual number and proportion of psychiatric casualties during the Okinawa operation. A few specific figures, however, have been cited. In "Okinawa: The Last Battle," the authors state: [10]

During the 10-day period up to and including the capture of Sugar Loaf, the 6th Marine Division had lost 2,662 killed or wounded; there were, also 1,289 cases of combat fatigue.

* * * Nonbattle casualties were numerous, a large percentage of them being neuropsychiatric or "combat fatigue cases." The two Marine divisions [1st and 6th] had had 6,315 nonbattle cases by the end of May; the four Army divisions [7th, 27th, 77th, and 96th] 7,762.

It is not possible to make any direct comparison between the neuropsychiatric rate of Army and Marine divisions. At the 82d Field Hospital, the general impression was that fewer neuropsychiatric casualties were ad-

[10] Appleman, Roy E., Burns, James M., Gugeler, Russell A., and Stevens, John: Okinawa: The Last Battle. United States Army in World War II. The War in the Pacific. Washington: U.S. Government Printing Office, 1948, pp. 323, 384.

mitted from the Marine divisions, but that those who entered the hospital were more difficult to treat; also, that return to combat duty was more difficult to achieve, perhaps because of the difference in basic philosophy between the Army and the Marine Corps. Some marines seemed to have a combat hardness which grew to be rather brittle so that, once their defenses had broken, some degree of personality disintegration occurred. Also, having been prepared by Marine indoctrination for quick and decisive beachhead action, they found themselves psychologically baffled by long, slogging operations that became common in the latter days of the Okinawa campaign. Finally, in hypnoanalysis, some marines showed an extraordinary amount of guilt which was found related to such ego factors as a feeling of complete loss of the idealized ego of the Marine Corps. The psychiatrists gained the impression that these young men had been given the conception that they must never show fear and that there was a complete loss of personal honor involved in any manifestation of anxiety under combat conditions.

Morale was best during the first phase, since it had been possible to effect easy landings and to enjoy early success in the southern push. The ease with which the preparatory attack on Kerama-Rettō had been accomplished also acted as a great tonic. The psychological advantage of expending hostility against an enemy, alongside loyal comrades, was at its height in the first phase. The stubborn resistance of the enemy was concurrent with cumulative fatigue in the middle phase. Uneasiness also arose out of the realization that heavy casualties were being inflicted on the Navy offshore. This probably had an influence on General Buckner's military pride. Articles had appeared, implying that a second front should have been opened on the marshy western side of the island and, also, that the general (Buckner) should have been closer to his troops than was possible with his headquarters offshore. Actually, the offshore location was more dangerous than any place on land because of kamikaze activity; it had been selected because the naval part in the battle had always been considered as of tremendous importance. Shortly after this was reported by David Lawrence,[11] General Buckner, as if to prove his personal courage, transferred his headquarters ashore and insisted on an inspection forward of a Marine battalion advance station. He was killed by an enemy shell on 18 June 1945. The island had already been declared secure and the military decision had been won, but this tragic incident cast sadness on the men and officers of the command.

It is very difficult to evaluate the changes in results with each of the three phases of the battle. It seems reasonable to suggest that the original program, as carried out in the first phase, had been successful, and that no changes had to be made. The decline in percentage of return of men to

[11] Washington correspondent, in his syndicated dispatches, 30 May and 4 June 1945, which appeared in the *Washington Star*.

limited campaign duty took place despite the increasing experience of the neuropsychiatric teams and, no doubt, must have been due to the prolonged duration of the battle and the baffling defenses of the encaved Japanese troops. At no time was the effectiveness of the treatment program questioned. At any rate, no reference was made to the possibility that changes in the essential treatment design were considered.

In Colonel Kaufman's report of 16 May 1945,[12] the expressed aim was to "provide psychiatric treatment at the foremost echelon possible at the earliest possible time." The topography of Okinawa generally made it necessary to locate field hospitals less than 6 miles from small arms fire and within easy range of enemy artillery. The 69th Field Hospital was established on L+2 or 3, with Major Beaton, of the original mobile psychiatric team, as chief neuropsychiatrist (figs. 79, 80, and 81).

By 8 April, the 31st Field Hospital was established with Captain Jackman in charge of the psychiatric services. These services were absorbed, along with the 36th Field Hospital, after the Kerama-Rettō occupation at Ii-Shima, with Major Gilbert as chief of psychiatry, when the 82d Field

[12] See footnote 3 (1), p. 646.

FIGURE 79.—Maj. Lindsay E. Beaton, MC, inducing hypnosis.

FIGURE 80.—Col. M. Ralph Kaufman, MC (right), Maj. Lindsay E. Beaton, MC (left), and a patient, after a hypnotic interview.

Hospital became the neuropsychiatric center on 25 April. These units were, at first, under the authority of the XXIV Corps and were supported with divisional psychiatric treatment (figs. 82 and 83), all under the supervision of the division psychiatrists (Major Smith in the 7th, Maj. Albert D. Pattillo, MC, in the 27th, Major Gilbert in the 77th, and Maj. (later Lt. Col.) Eugene J. Alexander, MC, in the 96th).

A minimum of controversy existed over the psychiatric definition of battle fatigue, in terms of the traditional feeling that line officers had about the proverbial definition of "cowardice." Officers in the top echelons had earlier been helped to understand the dynamics of battle strain and had been able to transmit their views to the younger officers. Many of them had benefited earlier from intimate consultations with psychiatrists in the basic training centers and in the various divisions. Colonel Kaufman, in his 16 May 1945 report, made a most clarifying comment in this respect, when he said:

FIGURE 81.—Okinawa neuropsychiatric team, March 1945. Front row, Lt. Col. M. Ralph Kaufman, MC, and Maj. Lindsay E. Beaton, MC; back row, Maj. Howard P. Gilbert, MC, Capt. Abraham I. Jackman, MC, and Maj. Charles A. Smith, MC.

The soldier who breaks down usually does so *not* because he is a coward quite the contrary, it is because he attempts to continue in the face of a biological situation that, at times, becomes overwhelming. The natural instinct for self-preservation must be put into the background. This conflict finally is resolved by the clinical manifestation "combat fatigue." It is caused by the soldier's desire to fight and not to run away.

The symptoms which accompanied this release from tension classically included partial or complete amnesias, misidentification, confusion, and

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FIGURE 82.—Intake interview of new patient by psychiatrist.

various forms of vegetative distress. Treatment was aimed at abreaction of the traumatic experience. The attending psychiatrist would then assume a so-called anaclitic role, through a kind, but firm, approach. Psychiatrists also reinforced their roles through living in the wards among the agitated and sicker patients. Their presence was a definite reassurance and helped prevent panic. The ward patients gathered around in spontaneous discussion groups in an air of relative calm (fig. 84). No one pretended to be a hero, and fears were frankly discussed on a realistic level, along with appropriate humor to release and diminish fear.

The psychiatrists took advantage of the patient-physician relationship and introduced themselves by "I am Dr.——" rather than by military rank.

Efforts had been made to arrange for expected psychiatric casualties through sustained contacts with line officers, in the belief that morale of the troops would be improved with better officer understanding of the tension sometimes induced by preparation for, and actual experience in, battle. The neuropsychiatrist was always alert to the importance of helping to make men more useful and effective as military units, and to avoid the illusion that making men comfortable would make them more effective. In

FIGURE 83.—First step in rehabilitation—a hot drink and food.

every unit and in all phases of the Okinawa operation, care was used to prevent hospitalization where possible and to shorten it by the therapeutic means already described. An aura of optimism was established early in the hospital setting, and this was greatly enhanced by the active participation of the psychiatrists and their ancillaries through living among the patients.

These high expectations bore good results, but it is sobering to have the following testimony, from the Marianas, on soldiers who did not have the benefit of the psychiatric treatment program:

Capt. William Rottersman, MC, serving on Saipan during the Okinawa campaign, in a letter of 5 June 1945 to Colonel Kaufman, made some interesting observations on the psychiatric casualties reaching the Marianas. He noted in his letter that psychiatric casualties were still arriving in considerable numbers, on 5 June, and that the majority were marines. He believed that, although the evacuation tags bore the notation that evacuation was performed to make hospital space available, nearly all the men would have proved of dubious value in future combat. To quote Captain Rottersman:

FIGURE 84.—Maj. Lindsay E. Beaton, MC, directing a group psychotherapy session.

The marine medical authorities, for a time at least, adopted the questionable practice of labeling many, if not most, of their neuropsychiatric casualties as "blast concussion." This may have managed to decrease their psychiatric casualties at the cost of increasing their battle casualties. Their nosology appears to have returned to that abhorrent diagnosis, "shell-shock."

Captain Rottersman further stated that the patients he saw impressed him with the minor role played by fatigue and physical exhaustion in the genesis of battlefield psychiatric disorders, even in those who had been many weeks in combat. He found a rather high proportion of reactive depressions, usually severe grief and guilt reactions, precipitated by the killing of civilians or the accidental killing of fellow soldiers. He treated these cases with subshock insulin and considered the results encouraging, believing that the insulin counteracted the physiological effects of grief and made the individual more receptive to psychotherapy and occupational rehabilitation.

Correspondents were sporadically present on many of the operations in the Pacific, particularly toward the end of the war. The Okinawa operation was well covered by major newspapers, and some of the reporters

showed considerable interest in the psychiatric program. To illustrate the impact of the work with combat casualties on a nonmedical person is the article, which follows, by Warren Moscow, correspondent of the *New York Times,* intended for publication in a national magazine. Allowing for the intentional dramatizing and the possible oversimplification and exaggeration of such an article, this lay description is a telling one of the psychiatric treatment program on Okinawa.

His name was Sam. He came out of the front lines, out from the hell that was Kakazu Ridge, under his own steam. And that was one of the things wrong. He wanted to be back there. He didn't care if he threw hand grenades at the Jap dug into the Okinawan hills. But he did want to tell them what he thought of them. The lieutenant said he was screaming. Suppose he was. No second Lieutenant was going to tell him what to do. The colonel—that was different—he liked the colonel, but something had happened to the colonel. He couldn't remember what.

Who were these men leading him. And who were these new ones talking to him? He didn't like them. He didn't like anybody. Why didn't somebody stop that noise that was going on. Put him to sleep? He dared them to. He fought, but it was no use, nothing was of any use * * *.

Sam was a combat fatigue case. In the last war we called the same thing "shell-shock" and we peopled our veterans' hospitals for years with shaking men with shattered nerves. Like Sam. Sam was a good soldier. He was a company runner, who carried messages under fire from one officer to another, up in the front lines. He did it when the going was toughest. He was a good soldier—and, the difference between last war and this, Sam is again a good fighting man.

When Sam came off the ridge, and through a front line clearing station which had had many a Sam pass through its hands, he came into the hands of two doctors, one a lieutenant colonel and one a major, who had convinced the army and navy medical authorities of the benefits of a new way of handling combat fatigue cases, of getting a high percentage of them back into the front lines for more service against the Japs. Sam didn't know that. He didn't care. In fact, he took a swing at the lieutenant colonel, but missed, that day he came back. He wouldn't do it now, though he shows signs of a sly grin whenever he recalls that he is one GI who took a swing at silver oak leaves and got away with it.

In the old days, Sam would have been kept quiet with drugs, would have been hustled off as soon as possible to a nice quiet spot on some other island hundreds of miles away, would have been hospitalized, and finally, the chances were about four to one that he would have to be sent home, of no use to the Army, and of very little use to himself.

One man with plenty of experience in handling these cases was Lieutenant Colonel Moses R. Kaufman, the officer Sam swung at just because he would have swung at anything, or anyone. Dr. Kaufman, a greying chunky dynamo of a man, is an experienced psychiatrist, a member of the Harvard faculty on loan to the Army, with a long medical record behind him. He didn't like the idea of the old treatment. It didn't cure enough of the victims. He sold a new formula to the high command of the medical forces in the Pacific.

The approval of Brigadier General John Mitchell Willis, surgeon of the Pacific Ocean Area under Lieutenant General Robert C. Richardson, and of Col. Fred Westervelt, surgeon of the Tenth Army under Lieutenant General Simon Bolivar Buckner, Jr., was obtained. With his assistant and protege, Major Lindsay E. Beaton, constantly at his side, Dr. Kaufman went ahead. His idea was just this:

Combat fatigue comes when a man's nerves give way under the cruel blasting of artillery, after days and days of unrelieved working, fighting and ducking, strain of the

kind no civilian can imagine. The artillery shell which lands, at the crucial moment, fifty yards away, can put a veteran, hardened soldier out of action just as surely as a machine-gun bullet in his midriff, even though no shrapnel hits him, and the concussion element is not a factor.

The soldier's mind goes blank, his hands shake. Often he is mute. Sometimes he screams, goes berserk. But when he gets out of the front lines with a blank instead of a sharp record of what has happened to him, the effect is sometimes worse. He counts his arms and legs, and finds them all there. He is physically whole. He begins to think of his buddies still in the lines, and to regard himself as a coward, even though he knows something he doesn't understand has happened to him.

In his subconscious he begins to find "justification" for his being out of the lines. He refused, subconsciously, to repair his mental equipment, so that he actually does become a casualty.

Dr. Kaufman's idea, and the one he sold for successful operation, was to treat these men while they were still in the danger zone; to refuse to permit them to be taken to a place of physical safety. If they could still hear the shells whiz over their heads; if they had to duck to the foxholes when the Jap planes came overhead; if they had to stand in chowlines in the rain, make their own cots and wash their own messkits, they would still believe they were in the army, ready to go back to the front lines.

As a result, on Okinawa, combat fatigue cases were treated closer to the front lines than any others, and the rest camps were forward, rather than to the rear of the hospital. And out of the first large group, every man who was mentally whole when he went into the army was cured, and went back to active duty. There were nine men, with previous records of neurosis, who were not cured, but then Drs. Kaufman and Beaton, and the staff of assistants they have collected, do not guarantee to make a man better than he was before. Censorship bars use of exact figures, but the percentage of men sent back to front line duty compared to those sent home was an exact reversal of the percentage in previous campaigns, where the patients were taken out of the zone of physical danger.

But let's get back to Sam.

Sam was a violent case, and when the sedatives administered at the front line clearing station wore off, Drs. Kaufman and Beaton had to put him to sleep by hypnosis, a well recognized and frequently used method. Use of drugs, another method, is not favored by these two. I saw the hypnotic treatment used. It looks ridiculously simple. The doctor softly reassures the patient that all is well, that he is safe. It is done in low tones, in constant repetition, until the patient just goes to sleep. And it works.

Sam took his punch at the doctor, but he went to sleep, whether he wanted to or not, and the two doctors went off to other tasks. Several hours later, Sam reappeared, neat, shaven, and sure he was all right. The doctors were not sure, but said nothing. He had made rapid gains, but they thought he was ripe for a relapse. He was. The next morning he inquired about his buddy, found he had been killed, and Sam was back in the state in which the doctors first had met him.

They worked on him at times during the day, made progress, but that night there was an air raid, with bombs hitting the hospital area, and the doctors had no time for Sam. But Sam had plenty of time. During the raid Dr. Kaufman was interrupted by Sam, who came over proudly, and said:

"I dood it.'"

"Dood what?" asked Dr. Kaufman.

"What you did to me. I put him to sleep. One of the boys. He was jittery because the Japs were dropping bombs."

Dr. Kaufman was too busy to check, but the next morning he found that Sam had not only been truthful, but modest. He put two patients to sleep, not just one, and both had been taken care of in a very professional manner. Sam was no place to be found, for

a while, until he was caught working over at the medical tent reserved for Okinawan civilians. He was giving first aid treatment to some children, and generally having fun playing doctor.

It is part of the treatment for combat fatigue to let one patient help another. In Sam's case it went beyond that. His aid was so valuable and the effect on him so good, that he was eventually transferred from infantry duty to the post of assistant at a forward medical clearing station, where combat fatigue cases get their first screening. It is there that the decision is made whether the boys just need rest and hot meals, or whether they should go to a rest camp, or to a hospital before they reach a rest camp.

Sam has a certificate, engrossed, on heavy paper. It is headed "The Okinawa Psychotherapeutic Society" and read as follows:

"This is to certify that Sam —— is a member in good standing of this association and is entitled to all privileges and rights thereto pertaining." It is signed by Dr. Kaufman as president, Dr. Beaton as vice-president, Dr. Charles O. Furniss as secretary, Dr. George E. (Oscar B.) Markey as chairman of the membership committee. And the busy Major General of Sam's division took time out from directing combat operations to stamp it "approved," sign his name, and affix the division seal.

When Dr. Kaufman's plan first started in operation, the treatment was given at all four of the field hospitals we had on Okinawa. Later on, it worked so well that a special field hospital was assigned, closer to the front lines than any other. Lt Col. John W. Middleton, in charge, took us through it. It was rough, and improvisation was in order of the day. As we went through, the chow line was forming, and the partially cured were on line for the noon-day meal. It was not any different from any other GI chow line, with the boys moving slowly forward, messkits in hand. When their tin plates were filled, they ate, sitting down if there was a box handy to sit on, then washing their kits in the big dipping vats. The only difference was that the atmosphere was more subdued.

The ward for violent patients was different. We came in, and Dr. Kaufman sat down on a cot. Its occupant was Ed, a lanky red-haired Irishman Dr. Kaufman had never seen before. Ed was a patient who had reverted, temporarily, to infancy, mentally. Everything he had learned in his life had been beaten down. He was a child again, afraid. He had been wolfing food the way a child stuffs it in, when Dr. Kaufman sat down on the edge of his cot. He drew away, wouldn't shake hands, wouldn't let the doctor touch him. Finally Dr. Kaufman did touch him, to prove it wouldn't hurt. When the realization came through to Ed's dimmed consciousness that here was something, someone, who wouldn't hurt him, he grabbed at the doctor the way an infant would grab for his mother. Dr. Kaufman gave him a cigarette, established friendship, and five minutes later Ed was asleep.

Hypnosis is not the cure. It is used first instead of drugs to put violent patients to sleep, and in all cases it does establish an intimacy between the patient and the doctor, which, once established, helps the patient talk out his case. When he talks about it enough, instead of burying it inside himself, the battle is won. But not if too much time elapses between the collapse and the treatment, and the cankers of fear and self-justification are allowed to develop into a full-fledged neurosis.

I also saw patients talking it out. We entered another tent, a group of us, and Dr. Kaufman introduced himself, Dr. Beaton and myself. There was no attempt to hide the fact that I was a reporter, nor was there any special point made of it.

There was one patient here, George, whom Dr. Kaufman had treated on his arrival three days before. His chart showed that he had arrived strapped to his stretcher, berserk. Now he was sitting up, quietly, looking quite well. But when Dr. Kaufman suggested a group discussion, George wouldn't join in it. A dozen others did. George said his experiences were too horrible. It was another GI, a thin, hard-bitten man, who started the conversational ball rolling.

All the tales were alike, in substance. They were just tales of quiet heroism, of the kind that men get congressional medals for sometimes, if the result happens to be more spectacular. In these cases, the spectacular element was missing. The hard-bitten little man told of being in the line three days and nights, of relief that didn't come when it was expected, of ammunition running short. He packed mortar ammunition up hill all day long that third day, so that his company could hold its position. His commander dropped, then the buddy who was helping him. Then, on his last trip, a loud noise, and blankness.

Another GI told his story, much the same. Just different names, a different hill, a different day. Then George spoke up. It was trite. It was pat, but it was genuine.

"Gee, I guess my deal wasn't so bad after all."

And he talked, as freely as they had, of his experience. When he finished, and just a story of a man doing everything he could do until he could stand no more and remember no more, Dr. Kaufman asked for others to come up front.

One after one the boys spoke up. They carried into their stories some of the tenseness they had felt at the time. It was hard on my nerves as I listened. Then kidding began. Kidding by Dr. Kaufman about the shaking hands and the twitching legs. And the boys talked about this, too. As they did, the twitching diminished, and in some cases, stopped.

One can't give the story of one case from start to finish, as an eye witness, but the composite picture is this. From the field hospital, the boys go still further forward, to a rest camp, where they will dig their own foxholes, care for themselves and generally act as if they were a regiment preparing to go into the line.

And after a week they do go back into the front lines. That is all they are ever offered, more of what caused their collapse in the first place, the horrors of battle. They take it. There are few repeaters and few evacuees. And there will be fewer with shaking hands and shattered nerves in the veterans hospitals after this war is over.

A historical diary kept by Major Beaton has also been of value in filling out the story of the Okinawa campaign (pp. 774–776). Major Beaton was assigned to the 69th Field Hospital where he was assisted by that hospital's able psychiatrist, Capt. (later Maj.) Charles O. Furniss, MC.

The 69th Field Hospital went ashore on the day after L-day, having been preceded the previous day by Colonel Kaufman who landed with the assault. This hospital had some trouble in establishing itself because the initial site chosen was preempted by the Tenth U.S. Army headquarters, since it was believed that the hospital would draw fire on the headquarters. Some patients were seen as early as 7 April, and by 9 April, the hospital was in full operation. Of the 150 patients received on the first day, 50 percent were psychiatric. By the second day, 150 patients were in the psychiatric ward. This initial inrush was accompanied by heavy rain, and all hospital wards had 1 to 2 feet of mud underfoot; these physical conditions precluded any concerted therapeutic program. However, from the very beginning, as had been announced by Colonel Kaufman, on Leyte before embarkation, to the somewhat astounded psychiatric team, hypnosis was the major modality both of sedation and of therapy.

Some hypnotic treatment was begun at once, despite the conditions, and according to Major Beaton, hypnosis was used almost exclusively for sedation in the 69th Field Hospital, from the very beginning of its opera-

tion. Many "evacuations by fiat," as ordered by Headquarters, Tenth U.S. Army, took place in the first few days. The anticipation of increased casualties and the pressure to keep beds open for the severe fighting that was to come were among the reasons which persuaded command to order these evacuations. Many of these patients could have been salvaged for duty on Okinawa had there been facilities for their retention.

During this early phase of the 69th Field Hospital experience, a movie was filmed. It had been intended to make a full-length movie of a treatment program in combat, which had been cleared and accepted by Headquarters, POA, and Tenth U.S. Army. Unfortunately, the complete project was not possible, because of lack of personnel and facilities. The movie that was made consisted of a 1,200-foot recording of actual treatment by hypnotherapy, narcotherapy, and group therapy. This film subsequently proved to be a valuable teaching device for medical officers and was later utilized in the Zone of Interior.

As the fighting became severe, air raids increased, with many occurring over the hospital. These upset neuropsychiatric patients, but it was found possible to do hypnotic sedation in the wards even while an air raid was in progress. Major Beaton, in his diary, recorded one of these air raids, on the evening of 15 April 1945, as follows:

> The more I think of last night's big raid, the more I see it as a real psychiatric experience. God damn tracers all over the sky; flak falling around us, someone jumping in the fish pool in front of my shack; hypnotizing the wildly disturbed and being assisted by those who 24 hours before were just as bad. I will never forget a kid by the name of Sam telling jokes and singing songs with anyone who could raise a voice. Digging the youngsters out of the caves in the side of the hill and out of the old Jap dugouts; and Mo [Kaufman] and I running around giving our helmets to kids who had lost theirs. We read too many books.

Sam, the soldier referred to, was a boy who had been wildly disturbed when brought to the hospital and was treated by hypnotherapy (see Moscow's story, pp. 671–672). He made a complete recovery and was returned to his unit. Sometime later in the campaign, he returned through the hospital with a severe chest wound, but without any relapse into neurotic symptoms.[13] Not only did he help on the occasion referred to in the diary entry, but he also assisted in the hypnotic sedation of patients throughout his stay in the hospital. His work was so valuable that, half in jest but half in very real seriousness, he was made an honorary member of the "Okinawa

[13] The psychiatrist, as a medical officer, had one important role in the service: to maintain as many men for effective duty as possible. Therefore, in combat, his treatment program was based on this premise. There was in many ways an even more important long term objective. When an individual who suffered from a combat reaction was able to return either to combat or to other effective duty, this gave him a sense of self-respect and dignity, which was tremendously important not only for his remaining military career, but also for the life that lay ahead of him after discharge from the service. In the case cited, the soldier expressed his gratitude for having been given the opportunity through removal of his combat reaction to return to his outfit and to be wounded like a man. The psychology of "the red badge of courage" was as telling in World War II as it was in the Civil War.

Psychotherapeutic Society" and given as a token of his membership, a hand-illuminated scroll.[14]

Major Beaton, during one emergency, was called on to run the post-operative tent and, being unable to find the ward attendants or any morphine, fell back on hypnosis. He recorded that the tent had a quiet night. Later, in the Okinawa campaign, it was possible to utilize hypnosis, not only in the psychiatric wards for sedation, but also in the general surgical wards. On occasion, hypnosis was used to facilitate the changing of surgical dressings, with testimony from the surgeons that this procedure enormously speeded the time for this chore. As an illustration of the close liaison with the line, Colonel Kaufman and Major Beaton visited the 7th Infantry Division at the front where, at the insistence of General Arnold, they spoke before the officers of one of the infantry regiments. Throughout the campaign, the acceptance of psychiatry by officers of the 7th Division was greatly furthered by the evident interest of the commanding general. On the occasion of this visit, he invited the psychiatrists to lunch, the food for which was no different from the mess any of them were used to, except that there was sugar cane growing outside the general's tent. He personally went out, hacked off pieces, and served them for dessert.

On 26 April, the 82d Field Hospital was established at Chatan as the special neuropsychiatric hospital for the Okinawa operation. Members of the psychiatric team were assigned, and thereafter, the major psychiatric work was accomplished at this hospital. Majors Beaton, Gilbert, Furniss, and Jackman constituted the staff, with Colonels Kaufman and Markey as working visitors.

Some of the early days at the 82d were rather hectic, because of the large number of patients and because of enemy action. After the first air raid over the hospital on the night of 28 April, patients and the medical staff spent the whole day digging foxholes. The night of that raid was characterized by an amusing incident. During the afternoon, the chaplain had set up a public address system which reached all parts of the hospital and played some records over it in the early evening. When the raid began and the psychiatric staff was busy digging patients and physicians out from under stoves, water trailers, piles of lumber, and deep dugouts, the chaplain was asked, as an aid to restoring tranquility, to play some soothing music on the public address system. Major Beaton who had heard some Strauss waltzes during the afternoon thought that the chaplain would pick music of this nature. He records his pleasure when he heard the scratch of the needle on the record and then his horror when the first selection the chaplain played was "Nearer My God to Thee."

In the early spring of 1945, the psychiatrists founded the "Okinawa

[14] To illustrate the close cooperation and interest taken by the 7th Infantry Division in psychiatric work, this scroll was prepared at the direction of General Arnold, the commanding general of the division, and was actually signed by him, as well as by the officers of the society (Kaufman, Markey, and Beaton). Kaufman has said that this is probably the only document of its kind in the entire history of warfare.

Psychotherapeutic Society." The president of this society was Colonel Kaufman, the vice-president, Colonel Markey, and the secretary, Major Beaton, strictly according to date of rank. This organization later grew into the "Okinawa Psychiatric Society," meetings of which were held regularly at the 233d General Hospital. This association was a cohesive, educational force for the psychiatrists who subsequently were assigned to the island. Later, its founding was not forgotten but celebrated in blackout to the accompaniment of "ack-ack" and with the assistance of a bottle of bourbon, provided by the commanding officer of the 82d Field Hospital.[15]

The effectiveness of the entire program depended on coordination and cooperation at all echelons. By and large, the cooperation at the division and corps levels was excellent. There was some difficulty at the Army level, as Major Beaton, in his diary on 6 May 1945, pointed out: "Last night the 10th Army pulled an outrageous rabbit out of a brass hat and ordered us to evacuate 200 patients, because the census had reached 600. They just insist on reducing the base combat strength. And then today the Surgeon of 10th Army called us up and said he is sorry, that he got a little hysterical last night."

In his diary, Major Beaton also noted (7 May 1945) the amount of work that went on at the 82d Field Hospital: "The hospital is a mad house of pentothalization and hypnosis. I have seen as many as four sessions going on at once in the clinic building, and we have had to put up a small tent outside for the overflow. The staff is doing well and the nurses do gratifyingly well with sedative hypnosis. We have just about done away with sleeping medications."

At the very end of the war, observations were made on what happened after the island had been declared secure and peace with Japan had been signed. There was immediate talk about discharge from the Army, which had a definite effect on the neuropsychiatric admission rate. A premium was placed on illness as a ticket home and admissions to the 233d General Hospital, where Major Beaton was then chief of the psychiatric service, increased alarmingly. Gen. Joseph W. Stilwell, then the island commander, showed a definite interest in this phenomenon, as did his Chief of Staff, Maj. Gen. Frank D. Merrill, who had commanded "Merrill's Marauders" in Burma. On the psychiatric service at the 233d General Hospital during this final phase of the Okinawa campaign were Capt. Frank A. Straccia, MC, Capt. Samuel R. Rosen, MC, Capt. Cecil H. Mahaffey, MC, Capt. Alphons Scheibe, MC, Capt. Arthur B. Burnett, MC, and Capt. Henry Greenbaum, MC. In addition, the hospital at one time had three clinical psychologists. Probably this was the most completely staffed general hospital neuropsychiatric service in the entire Pacific war.

[15] This was obviously before the days of recent psychopharmacology, but the members of this society met as frequently as possible and tried religiously to remember the ceremony of its founding by the use of the oldest tranquilizer known to the species.

Since Okinawa was the last campaign of the Pacific war and of World War II for American Forces (fig. 85), the psychiatric lessons learned and the treatment of acute emotional casualties in combat came to final fruition and focus on Okinawa.

Headquarters Tenth Army

7 September 1945

Surrender

The undersigned Japanese Commanders, in conformity with the general surrender executed by the Imperial Japanese Government, at Yokohama, on 2 September 1945, hereby formally render unconditional surrender of the islands in the Ryukyus within the following boundaries:

30° North 126° East, thence 24° North 122° East, thence 24° North 133° East, thence 29° North 131° East, thence 30° North 131° 30' East, thence to point of origin.

納見敏郎

Toshiro Nomi
Lieutenant General
Commander Japanese Forces
Sakishima Gunto

高田利貞

Toshisada Takada
Major General
Commander Japanese Army Forces
Amami Gunto

加藤唯雄

Tadao Kato
Rear Admiral
Commander Japanese Navy Forces
Amami Gunto

Accepted: Joseph W. Stilwell

J. W. Stilwell
General, United States Army
Commanding

FIGURE 85.—Japanese surrender document, 7 September 1945.

CHAPTER XIX

Alaska and the Aleutians (North Pacific Area)

Richard L. Frank, M.D.

STRATEGY AND LOGISTICS

The North Pacific Area included mainland Alaska, the Alaskan Peninsula, and the Aleutian Islands (map 32). In the absence of determined opposition, these areas could have become the avenue of approach for the Japanese to invade the North American Continent. It was with this realization that, in 1940, U.S. troops began a slow, steady buildup of forces in Alaska and later the Aleutians.

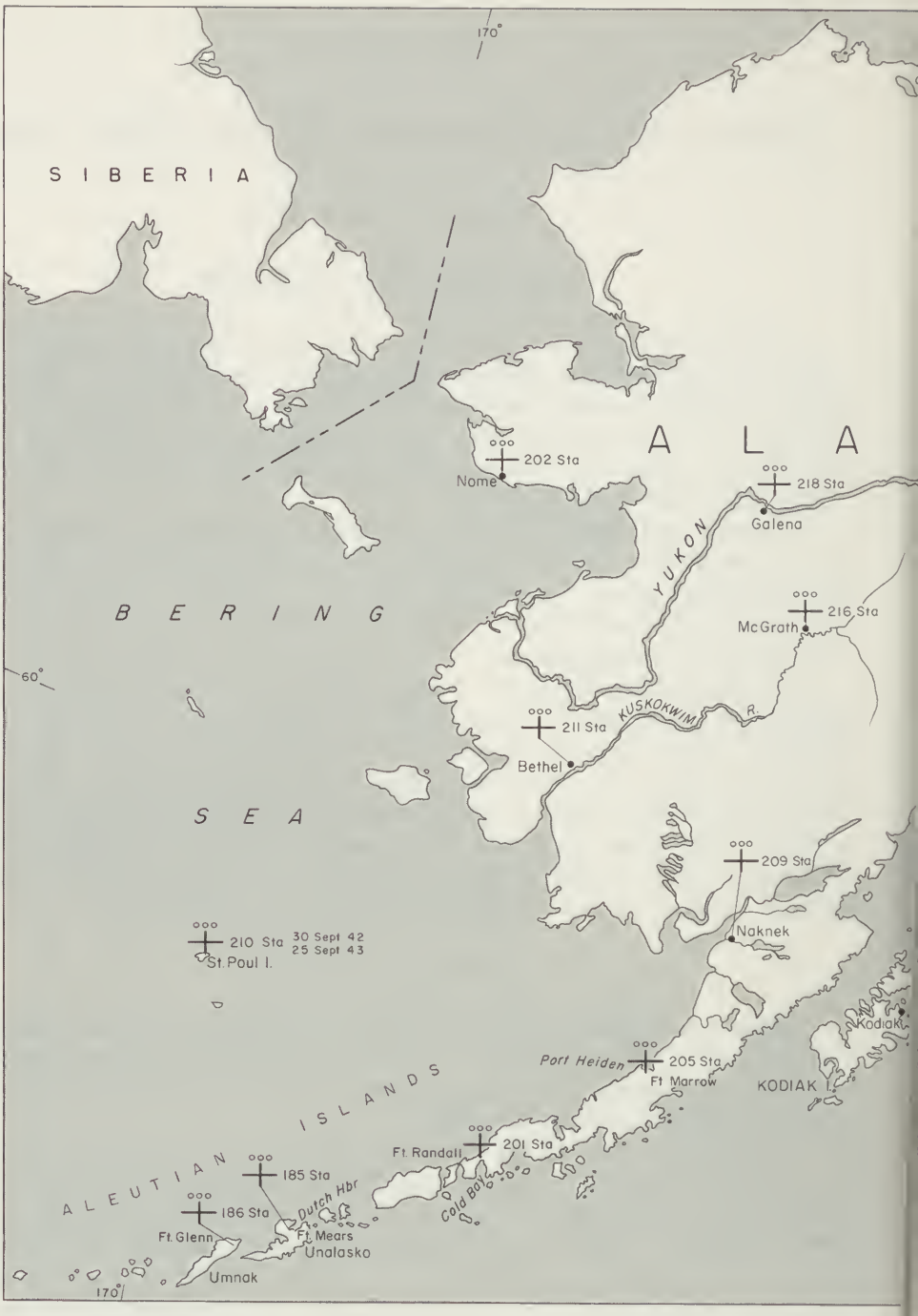
Terrain and weather were the two major problems that faced American forces assigned to Alaska and the Aleutians. Although these factors proved to be surmountable, they complicated every phase of operations of the U.S. Army and, particularly, the efforts of Medical Department personnel supporting these operations.

In terms of combat, the North Pacific Area never became a major theater of operations. In June 1942, the attempt of the Japanese to take Midway Island was accompanied by a feint toward Dutch Harbor, on Unalaska Island, off the Alaskan Peninsula. The bombing of Fort Mears and Dutch Harbor inflicted approximately 100 battle casualties, including 30 killed. Following the attack, the Japanese occupied the outmost Aleutian Islands of Attu and Kiska, there to remain a threat until the successful assault on Attu by the 7th Infantry Division, in May 1943.

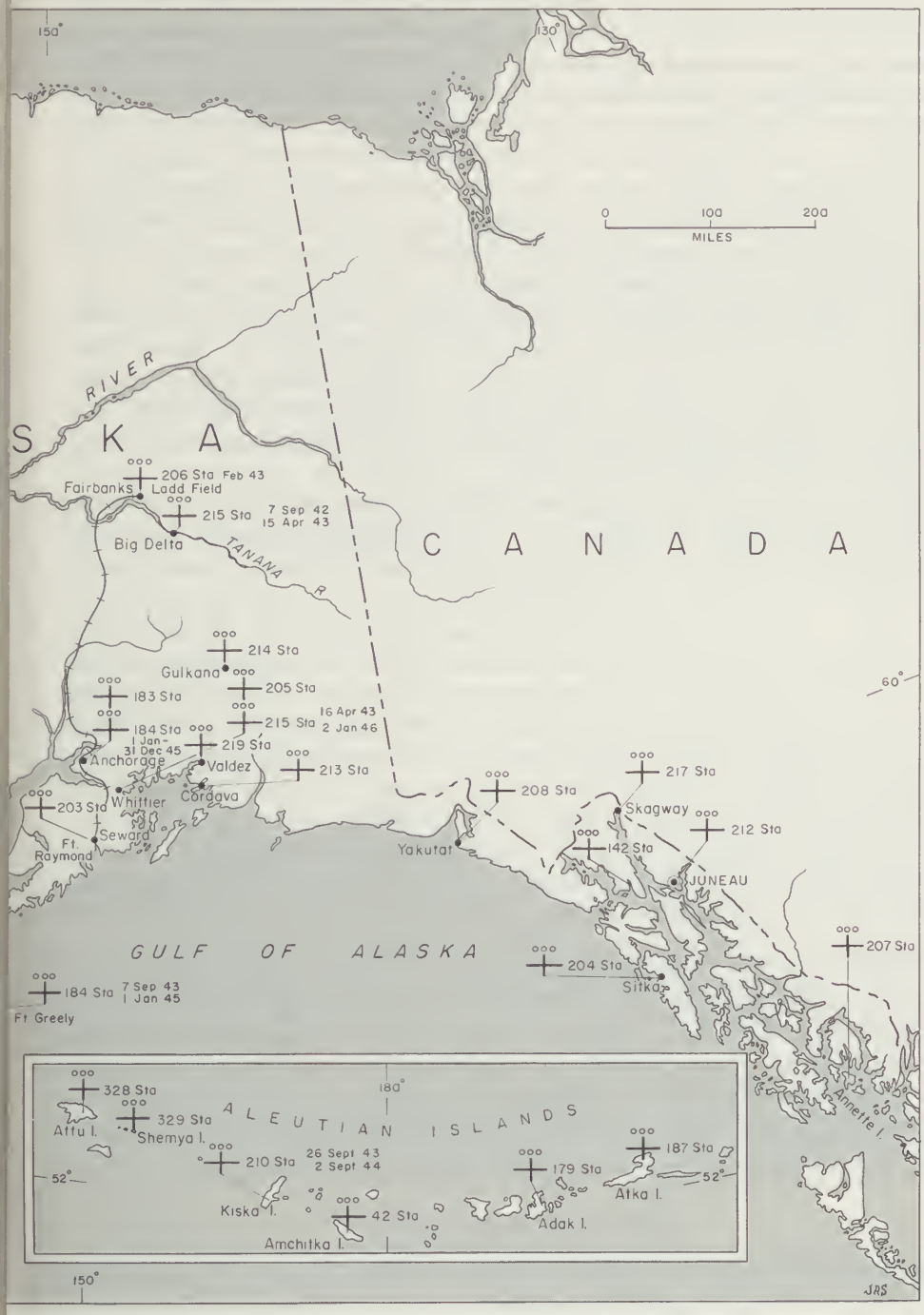
MEDICAL BUILDUP

Members of the U.S. Army Medical Department had first accompanied expeditions to Alaska in 1880 and had been part of the forces garrisoning six posts in 1904. By 1922, however, only one post remained at Fort Seward (later renamed Chilkoot Barracks).

Elmendorf Field (later Fort Richardson) was activated in 1940. The 1st Battalion Section, Medical Detachment, 4th Infantry Division, which consisted of 10 enlisted men and 20 Medical Department enlisted men from Fort Missoula, Mont., and Letterman General Hospital, San Francisco, Calif., accompanied the first group which was led by one medical officer and one dental officer. From the start, they were destined to cope with the cold, snow, rain, fog, and mud which confronted each new medical installation.



MAP 32.—Hospitals



in North Pacific Area.

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By the end of 1940, four new posts had been set up, in addition to the original hospital at Chilkoot Barracks. The development of an administrative overhead organization proceeded slowly. Until November 1943, Alaskan Forces constituted a subordinate element, first of the IX Corps area and subsequently of the Western Defense Command (with headquarters in San Francisco), formed by the Fourth U.S. Army. The modest beginnings of 1940, first termed "U.S. Troops, Alaska," became ADF (Alaska Defense Force) with headquarters at Elmendorf Field. On 4 February 1941, the ADF designation was changed to ADC (Alaska Defense Command), which was replaced by AD (Alaskan Department) on 1 November 1943.[1]

Maj. (later Col.) Ellis M. Altfather, MC, was designated as Acting Surgeon, ADC, on 19 February 1941, followed by Lt. Col. (later Col.) Luther R. Moore, MC, on 14 June 1941. Colonel Moore performed the duties of Surgeon, in addition to his duty as post surgeon at Fort Richardson. Only after the attack on Pearl Harbor was he assigned to headquarters as Surgeon, Alaska Defense Command.

The Surgeon, ADC, was a Special Staff member and had no command function. He served as an adviser to the Commanding General, Maj. Gen. (later Lt. Gen.) Simon B. Buckner, Jr., ADC. At the beginning, he had a relationship to the Surgeon, Fourth U.S. Army.

Until 1 July 1942, reports of sick and wounded went directly to the Surgeon, Fourth U.S. Army, with information copies to the Surgeon, AD. After July 1942, these reports were routed through the Alaska Defense Command. In October 1942, radio reports were transmitted by the Alaska Defense Command on the number of men to be, or expected to be, evacuated. In February 1943, technical medical data and, in July 1943, monthly consolidated technical reports were also transmitted.

In addition, the Surgeon, ADC, attempted to maintain liaison with his widely dispersed units through annual hospital reports, by visits to posts, and by talks with the many visiting medical officers who traveled through headquarters on their way to or from their posts. Throughout the war, there was a feeling in the command that the theater surgeon was doing an admirable job against great difficulties, and morale of Medical Department personnel in general remained high. Colonel Moore exerted effective leadership. Although not trained in psychiatry, he had a deep interest in, and an understanding of, the problems of the men in his command. He provided consistent support to the psychiatrists in the theater and encouraged the programs which they attempted at the various posts.

MEDICAL PERSONNEL

During the period of early expansion in 1942, the supply of medical personnel was always considerably short of the needed number, because of

[1] McNeil, Gordon H.: History of the Medical Department in Alaska in World War II, chs. II and III. [Official record.]

the large area and extreme dispersion of the troops into small units. During 1941 and early 1942, all Medical Department personnel for Alaska was provided by overall allotment by grade and number through Headquarters, Western Defense Command, and then suballotted by Headquarters, Alaska Defense Command. The rapid expansion in Alaska and the slowness and inflexibility of the system made for serious shortages.

Beginning in September 1942, numbered station hospitals were assigned with specified bed capacities to 29 posts, with four other posts receiving dispensary services. It was then possible to shorten the procedure and furnish prompt authorizations for additional personnel up to the percentage of TO (table of organization) strength justified by the strength of the post. The authorizations did not always result, however, in obtaining the authorized personnel.[2]

Enlisted men could be secured in the theater by transfer, but it was an all-too-common practice to shunt off undesirables in this way. Officers could be obtained only through the United States, and the procedures involved were long and discouraging.[3] The requests for trained neuropsychiatrists could be filled only very slowly and were attended by a great deal of confusion and temporary misassignment, owing to the timelags between requests and the arrival of the officers.

Although the overall lack of manpower began to be overcome in 1943, the acute shortage of technicians and other specialists continued. The dispersion of the troops and the difficulties of evacuation made the need for well-trained men particularly acute. Also, too often, the medical troops were inadequately trained or had no training. Almost totally lacking were experienced psychiatric attendants, so these had to be trained locally. The few male psychiatric nurses who were in the theater rendered exceptional service despite the adverse effect on their morale because of their lack of rank and the necessity of serving, at times, under the supervision of female officer nurses who lacked specialized psychiatric training.[4]

Since long term psychiatric inpatient treatment was not contemplated in the theater, the Red Cross assigned no social service workers. However, Red Cross recreational workers, where they were available, performed important services for neuropsychiatric patients.

The assignment of nurses to the station hospitals was delayed because of the harsh climate and the lack of housing. Nurses were finally assigned to 17 of the 29 station hospitals, but well below the number authorized. Each new station hospital was activated and operated for several months

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[2] McNeil, *op. cit.*

[3] There were periods of extreme confusion and lack of liaison between various levels of command. On several islands, numbered hospitals were sent in simultaneously from the Alaska Defense Command, from the United States, and from accompanying field outfits. The resulting reorganizations and determination of lines of command taxed everyone's patience and ingenuity.

[4] During World War II, only female nurses were eligible for commissions and appointment in the Army Nurse Corps. It was not until 1955 (Public Law 294, 84th Cong., 9 Aug. 1955) that male nurses were authorized commissions in the U.S. Army Reserve for assignment in the Army Nurse Corps.—A. J. G.

with enlisted men doing the work of nurses. Although not attaining the technical proficiency that would have been possible with trained nursing assistance, enlisted personnel proved that they could maintain hospital services effectively. They took great pride in their achievements and, when the nurses arrived, often resented being displaced.

At times, the men were upset by the presence of women and made the usual accusation that the female personnel existed for the use of officers (usually Air Corps or Navy). In general, however, nurses and Red Cross workers won the respect and grudging admiration of the men for their dedicated work. Paradoxically enough, the nurses and Red Cross workers tended to become depressed, feeling that they were not truly appreciated for themselves but were pursued only because of their sex.

HOSPITAL FACILITIES

Table 73 gives details on station hospital distribution, dates of establishment, and fluctuation in bed capacities.

TABLE 73.—*Posts and station hospitals in Alaska during World War II*

Post (location and date of activation)	Numbered station hospital			
	Number	Bed capacity [1]	Dates of operation [2]	
			From	To
1940				
27 June, Fort Richardson, Anchorage.	183d	600; 400	7 Sept. 1942	1 Jan. 1945
1 July, Chilkoot Barracks, Haines	217th	25	7 Sept. 1942	6 Feb. 1943
1 July, Ladd Field, Fairbanks	206th	100; 300; 250; 50	7 Sept. 1942	
2 Sept., Annette Island, Landing Field, Ketchikan.	207th	100; 25	7 Sept. 1942	1 May 1944
23 Oct., Yakutat Landing Field	208th	100	7 Sept. 1942	1 Apr. 1944
1941				
31 Mar., Fort Ray, Sitka	204th	150; 50	7 Sept. 1942	2 Sept. 1944
31 Apr.. Fort Greely, Kodiak	184th [3]	500; 300; 150; 100	7 Sept. 1942	1 Jan. 1945
8 May, Fort Mears, Dutch Harbor	185th	500; 250; 150; 75; 50	7 Sept. 1942	15 Apr. 1945
1 July, Fort Raymond, Seward	203d	150; 25	7 Sept. 1942	21 Sept. 1944
3 Sept., U.S. Troops, Nome	202d	200; 50	7 Sept. 1942	
1942				
17 Jan., Fort Glenn, Umnak	186th	500; 300; 50	7 Sept. 1942	20 Mar. 1945
29 Jan., Fort Randall, Cold Bay	201st	500; 150; 100	7 Sept. 1942	2 Sept. 1944
1 Mar., U.S. Troops, Juneau	212th	50	7 Sept. 1942	15 Dec. 1943
15 Mar., U.S. Troops, Cordova	213th	50	7 Sept. 1942	25 Nov. 1943
22 May, U.S. Troops, Naknek	209th	100	7 Sept. 1942	25 Nov. 1943
1 June, U.S. Troops, Northway				

TABLE 73.—*Posts and station hospitals in Alaska during World War II*—Continued

Post (location and date of activation)	Numbered station hospital			
	Number	Bed capacity [1]	Dates of operation [2]	
			From	To
17 June, Fort Morrow, Port Heiden	205th	100	7 Sept. 1942	18 Jan. 1944
24 June, U.S. Troops, Big Delta	215th	50	7 Sept. 1942	16 Apr. 1943
24 June, U.S. Troops, Galena	218th	25	7 Sept. 1942	6 Feb. 1943
26 June, U.S. Troops, Bethel	211th	75	7 Sept. 1942	15 Dec. 1943
4 July, U.S. Troops, Valdez	219th	25	7 Sept. 1942	15 Dec. 1943
9 July, U.S. Troops, Gulkana	214th	50	7 Sept. 1942	6 Feb. 1943
17 July, U.S. Troops, Tanacross				
25 July, U.S. Troops, McGrath	216th	50	7 Sept. 1942	6 Feb. 1943
17 Aug., U.S. Troops, Moses Point				
30 Aug., U.S. Troops, Adak	179th	500; 750; 700; 500; 300	17 Dec. 1942	
19 Sept., U.S. Troops, St. Paul	210th	75	30 Sept. 1942	26 Sept. 1943
30 Sept., U.S. Troops, Atka	187th	50	16 Sept. 1942	1 Apr. 1944
3 Oct., U.S. Troops, Whittier	215th	75; 50; 25	16 Apr. 1943	
6 Oct., U.S. Troops, Excursion Inlet.	142d	50	1943	1 June 1943
1943				
12 Jan., U.S. Troops, Amchitka	42d	250; 500; 400; 250; 150	January 1943	
11 May, U.S. Troops, Attu (Camp Earle).	328th	400; 300; 250	26 Sept. 1943	15 Apr. 1945
29 May, U.S. Troops, Shemya	329th	400; 250; 300; 250	26 Sept. 1943	
15 Aug., U.S. Troops, Kiska	210th	300; 25	26 Sept. 1943	2 Sept. 1944

[1] The differing figures on bed capacities reflect the rise and fall of the North Pacific Theater. As noted here, several station hospitals were reorganized with a new bed capacity as many as four times.

[2] Dates in the first column are dates of activation as *numbered station hospitals*. In most of the earlier posts, unnumbered post hospitals were functioning at an earlier date.

[3] Transferred to Fort Richardson, 1 January 1945.

Source: Adapted from McNeil, Gordon H.: History of the Medical Department in Alaska in World War II, chart 1, and pp. 130–132. [Official record.]

Permanent-type hospitals, built before Pearl Harbor, were present at Ladd Field and Chilkoot Barracks. Other hospitals were improvised or built up through the use of prefabricated structures, until the summer of 1943, when better materials became available. Hospitals constructed after June 1943 were of a modified TO-type construction which withstood the climate better than did huts and could be maintained with less difficulty. Because of the climate, two layers of insulation were required.

Most of the hospitals were conglomerate structures. Yakutat huts, small wooden frame structures using prefabricated panels, were employed at first and were later used as auxiliary units in conjunction with Quonset or Pacific huts. The sheet iron Quonsets came in different sizes, but the 16- by 36-foot huts became the standard because the larger sizes were

generally unavailable. The plywood Pacific huts were used at Camp Earle and on Shemya. They were popular since there was less tendency for their roofs to blow off, with lethal consequences, than there was for the metal roofs on the Quonsets.

Huts were dug in for part of their height to protect them from the wind and the danger of collapse under the weight of drifting snow. They were frequently connected by wooden corridors, which increased the fire hazards already severe because of the high winds. Huts were heated by oil stoves for the most part, although, during the early months, stoves burning Alaskan coal were used. The carrying of fuel was a major burden on the troops since distribution points were usually distant from the areas of use.

The same burdens often came from the need to carry water. The provision of an adequate water supply for the Aleutian hospitals was always a problem since pipes tended to freeze. Reliable refrigeration was also very difficult to provide. As time went on, flush toilets were installed for the use of the nurses. At most hospitals, toilet facilities consisted of latrine huts, heated to a greater or lesser degree. Oil drums, used as receptacles, burnt out periodically. Combination shower and laundry tents were constructed at some posts with improvised methods of heating the water.

Capt. Frank Gelbman, MC,[5] a psychiatrist who served both at Adak and at Fort Richardson, commented on these inadequacies: "One must have considerable incentive and fortitude to put on boots, clothing, heavy parka, then walk 100 yards in the wind and rain, in order to empty the bladder, or take a shower, or clean the teeth." He made no mention of the effect on the sphincter muscles of icy blasts blowing up through the seats.

Capt. Charles H. Jones, MC,[6] also a psychiatrist, who served on Shemya, believed that, in overcoming difficulties, men developed a heightened morale and took increasing satisfaction in bragging about their achievements. He noted: "A very definite contribution is made to ego strength when one struggles through a williwaw to take a shower in a weatherproof tent and then returns to his hut to exclaim to his hutmates, 'By God, I made it! It sure is rough out.' "

The dispersal requirements which obtained after the attack on Dutch Harbor, and the bombing damage to its station hospital, caused major difficulties. Buildings were required to be from 50 to 100 feet apart. As hospital capacity was lowered, special installations, such as X-ray, could be moved only with great difficulty so that consolidation was at times impossible. Patients, therefore, had to be transported back and forth, food service became a problem, and excessive workloads on personnel were inevitable.

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[5] Gelbman, F.: Retrospection on Part of Aleutian Campaign. Am. J. Psychiat. 106: 136–139, August 1949.
[6] Jones, C. H.: Neuropsychiatry in the Aleutian Islands. Dis. Nerv. System 12: 172–177, June 1951.

Special facilities for care of psychiatric patients generally had to be improvised. A security room could be made by partitioning off a section of a hut. The use of restraints or locked rooms was usually unnecessary where an attempt was made to maintain effective, understanding communication with the patient. The availability of companions to watch out for the patients also helped prevent disorganized behavior. Wetpacks could be used in many places as a form of sedation by training the available enlisted or nursing personnel in their use.

Problems occurred over the installation of more complicated equipment. For example, at the new hospital erected at Dutch Harbor after the bombing of the old one, an elaborate continuous tub apparatus was provided. Unfortunately, no way of supplying the necessary hot water could be devised, but it remained a conversation piece for a long time.

EVACUATION

Initially, all evacuation from Alaska to the United States was by water, using Army transports and Alaska Steamship Company facilities. Sailings were infrequent and erratic due to the shortage of vessels and the necessity to cooperate with Navy convoys. Voyages were slow, long, and rough. Freighters and transports had inadequate facilities and lacked safeguards for psychiatric patients. On the commercial vessels, attendants had to be provided, with a resulting loss of medical personnel for weeks or months. At one point, hospital ship platoons from Aleutian campaigns were established, but they proved inefficient and were soon terminated. Many ports were without adequate harbor facilities, necessitating transportation of patients to those posts at which the ships could put in.

Very early, it became obvious that air evacuation was desirable. Experimental evacuation flights were begun in 1942, using returning transport planes from Fort Richardson to Seattle, Wash., with medical officers assigned for the trips. Gradually, utilization was made of ATC (Alaska Transportation Command) and TC (Transport Command) planes. For a long time, no heaters were available on these planes, to the discomfort of both patients and attendants.

Serious problems were encountered when planes were forced to make unscheduled stops. Hospitals were finally ordered to provide bed space near the airfields to care for patients on such flight stops.

On 30 April 1943, Flight A, 805th Medical Air Evacuation Transport Squadron, was assigned to Alaska for duty with the Eleventh Air Force. From that date, air transport teams, one nurse and one enlisted man, provided medical attendance for all evacuation flights operating out of Fort Richardson. The same mission was performed at Ladd Field by Alaskan Wing, Air Transport Command.

Mentally disturbed patients who were evacuated by air were either

restrained or heavily sedated, sometimes both. Experience demonstrated that psychological preparation of the patients was important. Explanation of what was being done and what the patient could expect prevented excitement and struggles. This procedure was possible even in seriously disturbed patients. Occasionally, sedation was required to the point where the patient could listen to the explanation.

Air evacuation rapidly established its value and its use was increased, as follows:

Year	*Percentage*
1942	56.5
1943	77.3
1944	77.2
1945	80.7

Despite the increasing efficiency of air evacuation, cases tended to accumulate awaiting transportation. Waiting periods of weeks and months were common. These inevitable delays had both good and bad effects on the attitude of men with respect to return home through medical channels. The dread of confinement in hospitals or casual companies away from known companions had a deterrent effect on many men who might otherwise have pushed for medical discharges. On men with more definitive illnesses, the long delays had a depressing effect.

When policies concerning rotation or return on points were finally put into effect, eligible men tried to avoid evacuation through medical channels since it was apt to delay their getting home.

UNIQUE PSYCHIATRIC PROBLEMS

In regard to the North Pacific Area, the noted historian, Samuel E. Morison,[7] wrote: "Sailors, soldiers and aviators alike regarded an assignment to this region of almost perpetual mist and snow as little better than penal serviture. Both sides would have done well to have left the Aleutians to the Aleuts for the course of the war." Yet, the North Pacific theater had the lowest admission rate for both physical and mental illness of any theater, active or inactive, throughout World War II. For 1944 and 1945 (the only years for which figures were available to the author), the average monthly rate for neuropsychiatric illness was 12 per 1,000 men a year, in comparison with rates of 36 for 1944 and 38 for 1945 for the entire United States. Nevertheless, there was early and continuing concern about psychiatric conditions in the theater.[8]

A possible explanation of this paradox may be found in the omnipresent states of chronic depression existing in the theater, which were not

[7] Morison, Samuel E.: History of United States Naval Operations in World War II. Volume VII. Aleutians, Gilberts, and Marshalls, June 1942–April 1944. Boston: Little, Brown & Co., 1951, pp. 3–4.

[8] McNeil, *op. cit.*, p. 235.

reflected in the admission rates. This problem will be discussed in detail later.

It is doubtful if any new or unusual principles governed the development of neuropsychiatric problems in the theater. Morale tended to be high and stability maintained when there was a struggle to establish a foothold in a hostile area, when men had to battle to survive against a bitter climate, when fighting against the enemy was in progress, and when work essential for the well-being of the group was being carried on against continuing difficulties.

When active warfare ceased, morale tended to become a problem, as men believed that their efforts and privations were no longer needed, understood, or appreciated. With increasing length of isolated service, concern with indeterminate or shifting rotation policies with regard to duration of overseas assignment affected morale and threatened psychological adjustment.

Fantasies and Fears

Any understanding of the particular psychiatric problems in the theater must be considered not only in terms of existing actual conditions but also in the light of the inner pictures and fantasies held by the men regarding conditions of service.

The thought of service in the North Pacific produced many disturbing fantasies. Within the area, the stations more remote from headquarters, and particularly the garrisons in the Aleutian Chain, were pictured by the men as equivalent of exile. Their isolation, bleakness, and subarctic location fit in with such a possibility, including juxtaposition to Siberia.

Unfortunately, the creation of this impression was not left only to fantasy. In the United States and inland Alaska, men were threatened with being sent to the Aleutians as a punishment for "fouling up." Such threats were, of course, not unique to the North Pacific Area but did fit in with the expectations of many and reinforced feelings of being exiled for some fancied wrongdoing. Threats to send personnel to the Aleutians as punishment were occasionally carried out with results that were to be expected.

In July 1943, a group of men, many of whom were mental defectives, "psychopaths," alcoholics, and overt delinquents, from the Disciplinary Barracks at Chenango, Pa., were sent to Dutch Harbor. Some began to "break down" on the ship en route to this post. More developed acute emotional difficulties in the casual company to which they were assigned after arrival. Immediate efforts were made to deal with the situation, but many of the problem personnel were assigned to widely scattered units. The continuing breakdown of men from this disciplinary group contributed materially to a tripling of the neuropsychiatric discharge rate for the station during that year. The following case report is illustrative:

Private, aged 22, married, one child. Shot himself through hand. Says he did not know what he was doing; he was so mixed up, worried, confused and mad. Has been depressed for 3 months; has been having crying spells. On night before the accident he had put his gun to his head to shoot himself but could not go through with it.

Has had a series of difficulties for over a year. Married a girl from his home town at camp while drunk. Marriage did not work out well, and they were separated. They were divorced a year ago. About this time he hit the Lt. who joked about this girl and called her nothing but a prostitute. Was broken from Sergeancy and transferred.

Complains that he has had headaches over his right eye for over a year, and has felt drowsy and worn out.

Married again a year ago. Things went better for about six months, when he was replaced on the day his outfit sailed for foreign service. He was very upset over this and went AWOL for 10 weeks, going to visit his wife who was pregnant. Gave himself up and was Court Martialed. Sent to Chenango Disciplinary Barracks; released from confinement after short time, and put on duty status. Says he was able to work effectively at this time.

Father died when patient was young infant. Mother never allowed the patient to do anything dangerous. Repeated 2nd Grade. Played hookey a lot. Finished 2nd year H.S. at 16. Played basketball and football. Hitchhiked, restless, hot-headed; worked after school. Did some horsebreaking at 19. Thrown from horse and out of head 2 hours. Three occasions when passed out from heat. Had ankles stamped on by horse. In Army over 3 years; in Alaska 3 months Baby girl born four months ago.

Physical findings: nothing pertinent except for injured hand, which is in cast.

Neurological examination reveals no pathology.

Psychometric examinations reveal normal intelligence; Mental age, 15 years, 4 months; I.Q., 102.

Psychiatric examinations reveal a somewhat confused, worried, depressed man; unable to explain to himself what has happened. Has a great deal of resentment for the treatment he has received. Feels he has been given a terrible run-around; no one wants him. Is told one thing, then pushed off on to another outfit to do work other than he was told he would do. Asks how he can go on without pay. Has to pay back $500. Can expect no pay for months; he can't bear to go on; he gets so mad and disgusted he doesn't know what to do. Declares he and everyone else would be better off if he were dead.

Has fears of heights, deep water and smothering. When he is locked up he "just can't stand it!" He daydreams constantly of home. Jerks a lot in his sleep. Has nightmares that the doctors and nurses are cutting off his hand. Has no appetite.

No evidences of delusions or hallucinations.

Has been in increasing difficulties for a year. These difficulties are intimately related to his deep-seated personality involvement. Although not psychotic, he does not have the degree of social control of the normal individual. Prognosis for adjustment to further Army life extremely poor. Neither disciplinary action, treatment, nor educational procedures can be expected to have much effect in this respect.

Psychiatric diagnosis: Constitutional Psychopathic State: emotional instability. EPTI [existed prior to induction]. LD [line of duty].

The case once again demonstrates why under Memorandum No. W600–39–43 and No. W600–62–43 and WD [War Department] Circular No. 189, III 2 a (1), such cases are not supposed to be ordered overseas.

From the beginning, officers and men feared that anyone sent to the frozen wastes, isolated from contact with all that was familiar and subjected not only to actual physical danger and privation but also to an extra-

ordinary degree of instinctual frustration, would have psychiatric difficulties. For a considerable time, psychiatric facilities were lacking in the entire theater and, for a longer time, in local areas. Adequate facilities for evacuation had to be evolved slowly. Thus, the latent fears of what was to be expected from "exile" to the equivalent of "Siberia" and the frozen North were confirmed by the enforced presence of the occasional individual who broke down, often shortly after arrival, and who had perforce to remain for a considerable length of time.

Many of the men had the fear of suffering permanent impotence from the enforced sexual abstinence in the theater. Interestingly enough, sexual desire and fantasy were diminished as part of the chronic depressive reaction. Sexual dreaming was at a low ebb as was the incidence of masturbation and overt homosexuality (although no statistics are available).[9]

The following is a case in point: After the war, the writer was told about an individual who had been in the Aleutians for a long period. Previous to service, this man had been an overt homosexual. During an Aleutian tour of duty, he had functioned extremely effectively in a position of responsibility, with no overt homosexual activity, despite close association with other men with similar backgrounds of homosexuality. After leaving service, overt homosexuality returned along with anxiety and depression. Such a subsidence of sexual activity is considered later in the discussion of chronic depression as an adaptive reaction in the theater.

Despite the low incidence of illness, personnel in the theater had serious concerns about health. Some worries related to the absence of fresh fruits and vegetables, but vitamin tablets were made freely available, and no evidences of nutritional disturbances were found. At times, the diet was monotonous but, by and large, a good job was done in feeding the men, considering the difficult problems of supply and storage.

Stories stemming from Eskimo and Aleut experience made many of the men fear that vitamin and mineral deficiencies would cause dental trouble. These fears, too, were not confirmed by experience.

As Gelbman wrote:[10] "Strangely enough, there was far more discontent about the water than the food and lack of sunshine. At least 50 per cent of the troops believed that the water, because of 'lack of minerals' would lead to 'softening of the bones' and dental decay. The source of this myth was never ascertained. Explanation about the mountain source of the water, dental statistics, and reassurance did not destroy this legend."

Nor were fears regarding the water supplies confirmed. These fears

[9] According to Mullin (C. S., Jr.: Some Psychological Aspects of Isolated Arctic Living. Am. J. Psychiat. 117: 325, October 1960), reporting experiences in the Antarctic, in 1960: "Isolation from women is not a serious problem, and does not produce any conscious yearning, erotic and otherwise. There is a slight tendency to increased nocturnal emissions and masturbation, especially during periods of inactivity and personal emotional stress."

[10] See footnote 5, p. 688.

were often reinforced by the high degree of chlorination required to treat the icy water.

Difficulties of sewage disposal in the tundra gave rise to other ideas of disease, again unconfirmed by the statistics. Only in areas with a remaining native population was a low standard of sanitation an actual problem.

Rat and other rodent infestations were serious difficulties in some of the Aleutian Islands, one group of which was known as the "Rat Islands." These infestations presented danger of fleaborne diseases. Squill, one of the most potent rat poisons, had been made unavailable by the Japanese. Consequently, it was necessary to detail men for rat hunts at the dumps. Gassing of rats was also employed. Some men were bitten in their sleep, and fear of rats recurred periodically among the men.

Chronic Depression

Although, as stated, the admission rate for neuropsychiatric disorders in the North Pacific was lower than for any other theater, chronic depression was described in reports as early as the fall of 1941, when a physical and mental letdown among the troops was reported from one station, to be followed during 1942 by similar reports from six other stations. It was the opinion of the theater surgeon [11] that the situation was simply a result of the nostalgia to be expected under existing conditions. The mental attitude of the small number of men involved was, in general, one of belligerent antipathy rather than submissive dejection.

After the reversion of the Alaskan Theater to an inactive status in August 1943, and throughout 1944, this problem was repeatedly described. On 5 May 1944, Maj. Melvin W. Thorner, MC,[12] noted:

> * * * some of the commonest early symptoms are loss of spontaneity and initiative, disturbances of sleep and the digestive system, somatic conversion symptoms and irritability. The symptom of irritability is not easily subdued. It may express itself in argumentativeness, combativeness, restlessness approaching (but usually not quite reaching) insubordination and other asocial conduct. The loss of initiative is a serious problem from the military standpoint, in a theater in which improvisation is so potent a weapon in the struggle for existence.
>
> Later symptoms * * * include apathy and listlessness, disinclination to perform any but the most necessary duties, inattention, and a strong feeling of hopelessness. The apathy is often very striking. Some of these soldiers sit quietly, hour upon hour, with no duties to distract them. Often, they may neglect to write home. At times, they may not even read the letters received. The disinclination to move may, in some instances, where conditions permit, result in neglect of personal hygiene and appearance. A particularly ominous symptom is the translation of the feelings of depression into self-blame. Here, through no logical process, the soldier may partially or wholly convince

[11] McNeil, *op. cit.*, pp. 237–238.

[12] Thorner, Melvin W.: Report on the Psychiatric Problems of the Aleutian Area, 5 May 1944, pp. 53–62. [Official record.]

himself that his present deplorable situation is a justified punishment which Fate, or some more definite agency (e.g., his commanding officer) has meted out to him for his delinquencies and misdemeanors.

* * * episodes (in all cases depressive) of the manic-depressive syndrome have been seen. It is the impression of this writer that the ratio of manic-depressive psychoses to schizoid psychoses among soldiers in the Aleutian area is greater than in domestic Army areas or in domestic civilian experience.

The number of instances of overt and outspoken psychiatric disorders seen in this theater is not an accurate index of the importance of the problem. The difficulties of life in the Aleutian area produce, in all classes of personnel, a type of group depression which has not been observed anywhere in this writer's eleven years of experience in psychiatry.

These symptoms were produced mainly by a combination of frustration, including sex, isolation, consistent bad weather, geographic isolation, boredom, lack of orientation, and indeterminate length of service.

Gelbman [13] noted: "Apathy, indifference, lack of initiative, vague anxiety, bizarre physical complaints, preoccupation with sexual ideas, all became part of the general cultural pattern in lonely military posts where there are very few physical and emotional outlets."

From his experience, Capt. (later Maj.) George C. Burns, MC,[14] wrote: "* * * As months of foreign duty multiplied and extended into years, officers and men grew weary and tired. * * * The indefinite term * * * their isolation from their families and civilization preyed on their minds. Various degrees of inefficiency showed up in men who previously had been efficient workers. Men who considered themselves strong persons registered alarm on being seized with streaks of depression and ennui."

Capt. (later Maj.) James Q. Haralambie, MC,[15] in his analysis of the neuropsychiatric cases which were referred to the 183d Station Hospital from the various outposts and from the islands, noted: "Isolation from the love-object frequently led to apathy and a decrease in efficiency. In some cases, this depression reached the level of suicidal desires. Where liquor was available, temporary escape from the immediate situation was sought through drink.[16] Psychodynamics of the neurasthenic patient are often difficult to determine, but it is of interest that the majority of them came from isolated posts and had been stationed there for over two years."

The sense of isolation and the lack of freedom of physical movement were also very strong factors in producing borderline psychiatric conditions in men at these stations. Several observers reported, however, that a temporary release from the isolation by means of a leave or furlough had sometimes done more harm than good, morale being worse after return than

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[13] See footnote 5, p. 688.

[14] Burns, G. C.: Neuropsychiatric Problems at an Aleutian Post. Am. J. Psychiat. 102: 205–213, September 1945.

[15] Haralambie, James Q.: Survey of Neuropsychiatric Casualties (undated), pp. 1–2. [Official record.]

[16] One of the commanding generals at Anchorage believed that, to overcome the men's troubles, all that was required was to supply them with enough beer.

before, and a significant percentage of the psychiatric cases being men recently returned from furlough.

Capt. (later Maj.) Richard L. Frank, MC, in discussing the symptoms, reported: [17]

Under isolated Arctic conditions, fatigue, boredom, indifference, apathy, lethargy, restlessness, irritability, tension, agitation, and hyperactivity reveal themselves as phases of the individual's adaptive responses. In them, the machinery of depression-elation is involved to a greater or lesser degree. [These reactions were compared with those seen in hibernation.]

Despite the general instinctual frustration to which men in the Aleutians were subjected, few acute breakdowns occurred. It seems clear that chronic depressive changes can, at times, protect against more acute disturbances. They act as a kind of physiological sedative under conditions where the satisfaction of needs is realistically threatened or relatively impossible.

In general, under these conditions, food intake increases, although appetite diminishes, sexual desire and activity both decrease, general ambition disappears, activity slows down, tolerance for cold increases, and sleep becomes a primary objective.

As is to be expected, any stimulation in the face of these automatic attempts at sedation leads to irritability and tension. The resentment at being stirred up is almost independent of the type of stimulus and leads to brief but violent activity. Many men prefer isolated posts where they would be subject to the least stirring up.

Hyperactivity, under the conditions described, is of a less adaptive type, often involving some kind of destructive activity or activity leading to accidents and injuries. Here the fantasies are on the surface and involve extreme anxiety over notions of helplessness, isolation, and lack of communication.

For commanding officers, it was a frequent source of irritation to have their men walk down a corridor smashing in the wallboard lining, every few feet, with their fists. Such behavior was a frequent frantic response to unconscious fantasies of imprisonment and confinement on the part of the individuals who would describe almost uncontrollable states of tension and feelings of "jumping out of their skins." These fantasies were found in cases of hypomanic behavior where the increased motility and increased talking served as an attempt to deny the feared confinement and threatened loss of communication.

When such subconscious fears were recognized and explored with the patient, the accompanying symptoms were rapidly relieved. In the writer's experience in the Aleutian area, no hypomanic cases of this type required the use of security measures.

The following may serve as an example:

Case report.—A young soldier attached to an antiaircraft battery suddenly began to hallucinate the approach of the Japanese. He became extremely tense and hyperactive. He was brought from his unit to the Hospital. He showed great apprehension at the idea of hospitalization. He was allowed to pitch his tent outside the ward and to remain in it. He took off across the tundra several times, believing that Japanese planes were overhead and that he was needed by his outfit.

[17] Frank, Richard L.: The Organized Adaptive Aspects of the Depression-Elation Response. *In* Hoch, P. H., and Zubin, J. (editors): Depression. New York: Grune & Stratton, 1954, pp. 51–63.

After a few cold nights in his tent and several talks with the Neuropsychiatrist during which the nature of his fears was pointed out to him, he asked to sleep in the ward; he showed, however, no evidence of having understood what the doctor had said. His hallucinations and delusions continued, but the marked tension and anxiety subsided.

Some weeks later, while being put under Sodium Pentothal to permit his transfer by plane, he at first resisted going under. Just before the drug took effect, he smiled at the Neuropsychiatrist and thanked him for having understood his fears and said that, although he had been unable to acknowledge it before, it had made a great difference in how he felt.

After World War II, Sachs [18] made similar observations from psychiatric and psychological studies on military personnel under natural conditions of severe ice, cold, wind, and isolation at Fort Churchill, Manitoba.

Medical officers themselves functioned under great psychic pressure, and a number of them required evacuation. Therapeutic expectations experienced under conditions prevailing in the theater were shattering to many of them. This was especially demoralizing when medical officers were called upon to withstand their own tensions and frustrations through the continuous complaints of their men. Training in and some experience with various aspects of psychotherapy were helpful in this regard.

Chaplains experienced the same sort of pressures, and many of them fared badly in the face of the constant churning-up of their own inner tensions. Some of them, too, required evacuation.

Some officers developed the ability to isolate themselves from these pressures but, generally, only at the expense of understanding their men and, thus, impairment of effectiveness. Others protected themselves in a more constructive way by constant efforts to improve the lot of their men, which had important implications for morale of both enlisted men and officers.

Length of Service

Concern regarding the effect of long periods of service in the theater resulted in the publication of ADC Circular No. 97, 30 November 1942. This circular pointed out the favorable health features of service in Alaska, as reported by the theater surgeon, and emphasized the importance of command leadership. It was announced that limited rotation would be provided by returning personnel to the United States to form cadres for new units being activated, but that rotation would have to be considered as being secondary to winning the war. This attitude was understood by the troops during the period of active warfare, and during the excitement of the rapid expansion. Furthermore, the realities of the transportation situation and the lack of specialized personnel were fairly obvious.

[18] (1) Sachs, Jerome G.: A Preliminary Study of Psychological and Psychiatric Observations of Military Personnel Under Natural Conditions of Severe Cold, Wind and Isolation. Fort Churchill Experiment, 1947–48, pp. 2–3. [Official record.] (2) Sachs, J. G.: Psychological Reactions to Winter Arctic Conditions. U.S. Armed Forces M. J. 11: 309–313, February 1951.

Continuous studies, during 1942 and 1943, by the theater surgeon, by G–1 (personnel), and by other interested agencies, revealed differences in opinion about how long men should be held in the area. Early experience had shown that furloughs and leaves to the United States often led to serious difficulties upon the return of the men to their units.[19] It was thought that rotation would be a better solution, once it became possible.

The policy of the Air Corps and the Navy of rotating men after a 12-month tour of duty had a serious morale effect on the Army personnel who were serving indeterminate and much longer periods of service in the area.

The initial recommendation of the theater surgeon for a 2-year period of service was restated on 3 March 1943, as representing a consensus as to what was a reasonable period, if any definite period for Alaskan service could be set. There was discussion as to the advisability of differentiating between more remote Aleutian stations and those on the mainland.[20]

A policy of rotation was announced by the Alaska Defense Command, on 12 August 1943, for both individuals and units. In October, a policy of returning only those who had served a 2-year term of Alaskan service was also announced. The salutary effects of this new policy were soon noted.[21]

Announcing the policy and being able to put it into effect, however, were two different matters. The difficulties in transportation and in obtaining specialized replacements, particularly for what had become a secondary theater, prevented prompt accomplishment of rotation.

The most frequent comment on the effect of the policy on the neuropsychiatric program was that the period of North Pacific service should be reduced. Thorner,[22] at Adak, recommended an optimal period of Aleutian service of one year. Frank,[23] at Dutch Harbor, wrote in 1943:

> There is almost unanimous agreement between experienced medical and line officers interviewed who have been dealing with the problem here and elsewhere along the Aleutian Chain that one year's service here is the optimum for the men and that 18 months is about the maximum satisfactory period before rotation and return to the United States.
>
> The average well-adjusted man has proved capable of withstanding longer periods of isolated service but his efficiency and morale tend to drop. Borderline cases of adjustment tend to adjust with greater and greater difficulty with increasing duration of stay.

Lt. Col. Joseph E. Cannon, MC,[24] the commanding officer of the 329th Station Hospital on Shemya, on 22 December 1943, noted:

> * * * We had many N.P. [neuropsychiatric] cases. I might say that 50% or 60% of the men who have been there for a year and a half, were psychoneurotics to some

[19] McNeil, *op. cit.*, p. 242.

[20] Report, to Surgeon General, U.S. Army, and Intelligence Branch, Preventive Medicine Division, from Surgeon, ADC, subject: Medical Service, Arctic Alaska—Supplement No. 1, 3 Mar. 1943.

[21] McNeil, *op. cit.*, p. 249.

[22] See footnote 12, p. 694.

[23] Annual Report, 185th Station Hospital, for 1943, dated 15 Jan. 1944, p. 7.

[24] Interview with Lt. Col. Joseph E. Cannon, MC, Commanding Officer, 329th Station Hospital, Shemya Island, 22 Dec. 1943.

degree or other and probably more than that. Only a few of those, maybe 2% or 3% of all cases hospitalized had psychoneurosis to such a degree that they were of no value in that particular place. We tried to get at the background of the thing, which was fairly easy. Generally * * * it was either a fear reaction because they were in a combat zone, particularly when we first went there, and secondly, complete isolation got them down after a while. They just couldn't stand it much longer, for they felt that they were being discriminated against, because they were up there a long time without going back. We attempted to salvage all of these cases we possibly could and would say that around 97% were returned to duty, with a few returning later. We had no psychiatrist. It is my opinion that you can't keep troops too long in an isolated area, but no visible effort was made to effect relief. The boys will crack up. During combat, it isn't bad for they get over it, but when they have nothing to do, something is bound to happen.

With the victory in Europe and the inauguration in 1945 of the War Department's Redeployment Program, rotation was ended in Alaska as in other theaters.

Studies made it clear that, although increasing length of service increased the incidence of chronic depression, the psychotic breakdown rate was less directly related. There was apparently a relationship between the inner picture held by the men concerning length and condition of service and the rate of breakdown. In comparing reactions during various periods of the war, this factor must always be taken into account. Thus, Gelbman [25] and Jones,[26] studying the same problem at different times from the same area, reported conflicting findings. Perhaps the differences in their findings came from differences in the overall emotional climate of the particular stage of the war.

Frank,[27] in his study of 210 cases returned to the United States from Dutch Harbor during 1943, reported: "The group on Dutch Harbor was very similar diagnostically to Disposition Board cases with a neuropsychiatric diagnosis studied by Maj. Roy E. Kinney at Fort Blanding in Florida, during a similar period * * *."

In contrast to the 40 percent at Fort Blanding, the neuropsychiatric cases represented 31 percent of the cases passed by the disposition boards at Dutch Harbor and were directly comparable to the 30 percent quoted for the Alaska Command as a whole for this period.

The incidence of psychiatric breakdown varied more with the actual or anticipated changes in troop disposition than with the number of men actually at the post. The movements of men incidental to the Attu and Kiska operations were accompanied by marked upswings in the occurrence of psychiatric disturbances.

After the Kiska campaign, a new peak was reached which seemed related to the men's feeling that what they were now doing was considered of little real importance to the war effort, yet they were stuck in an isolated post with no possibility of furlough or rotation. A further disturbing factor

[25] See footnote 5, p. 688.
[26] See footnote 6, p. 688.
[27] Frank, Richard L.: Unpublished study made at 185th Station Hospital, Dutch Harbor, 1944.

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was the arrival of Christmas packages with a general stirring-up of feelings.

The breakdown rate of the cases coming before disposition board by length of stay in Alaska, follows.

Time of breakdown	*Percentage*
By 6 months	15
By 12 months	37
By 18 months	75
By 24 months	85

The greatest rate of breakdown occurred between the end of the first 6 months and the end of 18 months, with approximately 61 percent of the group disposed of by the disposition board breaking down during that period.

The general expectation of the men at that time was that a minimum of 2 years' overseas service would be required before rotation would be possible.

A study of individuals indicated a tendency toward breakdown at the end of the first year with the inner feeling, "I can't take another year of this." Those that held on another 6 months seemed to get a new hold on themselves as if feeling, "I've gone this far, now it's only a matter of months." Once over the 2-year mark, men generally expressed pride in their ability "to take it" and resisted anything that would destroy this feeling. This timing of breakdown was in marked contrast to the soldiers studied during the same period at Bellevue Hospital in New York City, N.Y., where 70 percent had broken down within the first few months of service.

In the Aleutians, individuals suffering from different types of neuropsychiatric illness, however, broke down at different rates. Organic cases, manic-depressives, and mental defectives tended to have a higher breakdown rate during the first year than did the rest of the group.

Schizophrenics (schizoid), reactive depressions, neurotic personalities, and neurotic cases carried on for a longer time without breakdown.

A study of the duration of acute symptoms, before breakdown occurred, gives some clue as to the attitude of medical officers toward various types of difficulties. About one-half of the cases had acute symptoms less than 6 months, while one-quarter had them for 6 months to a year.

Cases with obvious organic changes, with marked irritability, with clearly psychotic behavior, and with extreme outward manifestations of anxiety received the earliest action. Action on the mentally defective and on the more passive men with problems tended to be put off for a longer period of time. Depressive symptoms per se did not compel attention although suicidal threats did.

Jones,[28] reporting on 85 cases hospitalized on Shemya from 1 January 1945 to 2 May 1946, noted that practically all the psychotic reactions oc-

[28] See footnote 6, p. 688.

curred during the first months or during the last few months of a soldier's projected tour of duty. This was well demonstrated, as the average time in months was gradually reduced. Symptoms might appear at 18 months in a soldier expecting to go home in 20 months, whereas they would not appear until the 27th or 28th month in a man "sweating" out a full tour.

Incapacitating psychoneuroses were recognized in men with service on Shemya which varied from 2 to 20 months, of which 40 percent occurred during the first 6 months. In no case of psychoneurosis requiring evacuation was normal rotation anticipated. At the time the man with 22 months was evacuated, he needed a minimum of 8 months' additional service to have been eligible for rotation. A few mild anxiety states were seen in some soldiers during the last few months of Aleutian service. These men on sick call often asked for sedation but were most anxious to avoid hospitalization. They did not want to let anything interfere with their scheduled voyage home.

Once again it is necessary to point out that these cases were studied by Jones in a late period of the war.

Behavioral Problems

The Regular Army units assigned to inland Alaskan posts early in the developing emergency contained their share of inadequate and disturbed personality types. These troops were kept in the theater for inordinately long periods of time, being gradually shifted from their inland posts to provide part of the manpower for the new posts set up on the Aleutian Chain. On occasion, the more unstable men were those selected to make the move. Once established in their new posts, they were forced to remain for further long periods.

One incident on Atka [29] illustrates the kind of problem which could arise. Among the troops on the island were Regular Army men who had arrived on Annette Island in September 1940, and, thus, were the oldest in the command from the point of view of Alaskan service. They were a rough-and-ready group seeking whatever outlets were available. Cooped up on a particularly isolated island, they could best be described as amoral in character. They had created no particular difficulties, however, until an overt homosexual arrived on the island. He soon became involved with several members of the established group. He went into a panic after a short time and sought refuge in the station hospital, claiming he had been sexually assaulted. The commanding officer of the hospital immediately carried the problem to the colonel in command of the post. Shortly thereafter, the 10 men implicated were transferred to Dutch Harbor for a general court-martial. There, the wheels of military justice ground vigorously. Lest there be any interference with prompt disposition of the cases, the commanding

[29] Essential Technical Medical Data, Surgeon, 187th Station Hospital, 1 Sept. 1943.

general ordered that the men in question be given psychiatric evaluation only after trial. This was at variance with the then current War Department directives on the disposition of homosexuals, which recommended psychiatric evaluation before possible court-martial.

Psychiatric examination of the men was ordered after their trial, conviction, and severe sentencing. The man who had made the complaints of assault and who had taken panicky refuge in the hospital turned out to be a psychopathic personality with paranoid traits. The others of the group had varying degrees of personality disturbance and intellectual impairment, complicated by a serious breakdown of morale, incidental to an excessively long period of isolation in the theater. Whether or not the sentence was subsequently revised by higher authority is not known.

At a neighboring post, the problem of homosexuality was dealt with in a very different manner. The station hospital was commanded by a Regular Army colonel of capacity and wide experience. He became aware, unofficially, of a number of homosexuals in the troops under his command. No difficulties had been reported in connection with these men. By careful assignment and by attention to problems before they became serious, these men were kept on effective duty over a long period of time. Some of them were gradually moved to a somewhat isolated area of the post where they would not be disturbing to other men on the post.

Gelbman [30] wrote:

> * * * For unknown reasons, the myth that prolonged heterosexual abstinence would lead to impotency (expressed as "drying up") was prevalent. Also, many men feared that they would become homosexuals because of continued abstinence from sexual intercourse. These fears, which could have been greatly minimized by informative lectures while troops were in the United States, were inadequately allayed by explanation and reassurance. The dread of impending homosexuality was frequently due to guilt over masturbation or childhood indulgence in homosexuality.
>
> Overt homosexuals were found in groups—at least one group on each island in the Aleutians. Most non-deviants seemed to have a "live and let live" attitude. Yet, the presence of homosexuality did raise doubts and fears about one's own sexuality in the minds of many men. Every attempt should be made to eliminate homosexuals before embarkation to an isolated area. After arrival, it is doubtful if morale is served by evacuating homosexuals. It must be remembered that the departure of a man, for any reason, is viewed with great resentment. Each man seems to identify himself with the person who is fortunate enough to go back to the United States, regardless of cause. Intercourse per ano, alleged or confirmed, was very rare. Only 2 occurrences were confirmed—one by a homosexual, attacked by 3 men, and another by a mental deficient, seduced by a psychopath.

The marked differences in approach toward homosexuality at various posts and under different commanding officers was but one manifestation of different attitudes toward psychological illness in general. At some posts, anything except acute fulminating psychotic illness was considered malingering. At others, encouraged by both line and medical officers, pre-

[30] See footnote 5, p. 688.

ventive medicine, early diagnosis, prompt handling, and at least minimal treatment were attempted, with a degree of consistency. In between these extremes, many degrees of difference could be found. At individual posts, changes in attitudes would often follow changes in officer assignments.

Malingering was rare but obvious in the few cases where it was noted. These clear cases were seen in connection with criminal activity, as in the case of a particular unit whose sergeant had been murdered.

The article by Gelbman [31] and the answering one by Jones [32] reflect such continuing differences in psychiatric attitudes which were duplicated elsewhere. In effect, it represented the firm disciplinary approach in contrast to the therapeutic and preventive approach.

On some occasions, the policies regarding mental illness were subject to the vagaries of attitude of individual commanding officers. One general, commanding an island post, issued an order that no patients would be evacuated with a psychiatric diagnosis. He accompanied this by an effort to have the only psychiatrist in his command transferred to outpost duty. Subsequently, the general was evacuated and the psychiatrist transferred to another post.

Differences in attitude and approach to individual manifestations of neuropsychiatric problems could be seen at all levels of officers and enlisted men. Line officers attempted to shift their ineffectuals to cadres at other posts, which meant, in practice, in the earlier stages of the war, to new stations being established on the Aleutian Chain. This contributed to the difficulties mentioned previously. Additionally, the line officers sought to get rid of their personality deviates through medical channels rather than through the more difficult proceedings specified in AR 615–368. Psychiatrists often found themselves involved in such procedures and, on occasion, fighting back against what they believed was an abuse of their services.

Medical officers, fairly fresh out of civilian life, were apt to be confused and in conflict about their obligations to the Army, as against their traditional therapeutic responsibility to the patients. This was a particularly difficult problem as it related to the personality deviates who, at best, occupy a poorly understood position in psychiatric nosology. The medical officer with fragmentary psychiatric training had to make his decisions on the handling of these cases on the basis of the prevailing policy in the theater, and this kept shifting with the shifting needs of post, theater, and command.

The few psychiatrists scattered through the area had to approach their problems as best they could on the basis of their personalities, professional background, and experience. On the one hand, they were subjected to line officer pressure to evacuate medical problem personnel. On the other, they were urged by higher headquarters to conserve manpower by return-

[31] See footnote 5, p. 688.
[32] See footnote 6, p. 688.

ing men to duty promptly despite the men's psychological problems.

One of the most important functions of the experienced psychiatrists in the theater was to educate commanding officers in emotional reactions resulting from prevailing conditions. Less experienced nonpsychiatric medical officers found it difficult to become convinced of the reality of some of the psychiatric illness because of the polymorphic forms and rapid shifts in the symptom pictures. Under these conditions, there was a tendency to hold that the conditions observed were under some degree of conscious control of the men and could be dispelled by appeals to reason or by threats of disciplining. Even psychiatrists fell into this trap at times, until they were forced by the course of their cases to recognize the underlying core of psychiatric illness.

Reward and Punishment

In general, reward and punishment for control of behavior were less effective in the North Pacific Area than in other settings. As already noted, one of the favorite threats was to send men who did not fit in, to more remote stations. But once they were there, the threat could no longer be used. Sending men into action or assigning them to disagreeable duty had little meaning since action was sporadic, mobility was severely limited, and all duty was considered disagreeable. Personality deviates were particularly prone to volunteer for spectacular activities when the opportunities presented themselves although their performance was generally disappointing after a time.

Restricting leisure-time activity was a futile gesture since, at best, there were so few forms of amusement available and much command effort was being expended at pushing men into activities as a way of improving morale.

Restriction to an area as a punishment was laughable since everyone was automatically restricted by conditions. Imprisonment was made meaningless by the same considerations and only involved an added burden on others who had to care for the men who were to be confined. Jones [33] reported that, on Shemya, a stockade was improvised by walling off half a Pacific hut and a man kept in it for a 6-month period without credit for overseas time. In general, however, men considered themselves already imprisoned for an indeterminate period.

Just as, under the prevailing conditions, punishment was made less effectual as a measure of control of behavior, so was reward. The lack of mobility inherent in the transportation restrictions made transfers between posts difficult or long delayed. Return to the continental United States, the one reward most wished for by everyone, was extremely limited by transportation difficulties, regardless of policy. And, paradoxically, when the

[33] See footnote 6, p. 688.

much desired leaves had been achieved, adjustment to return to duty became especially difficult.

Partially owing to the unavoidable restrictions on mobility, but influenced even more by the problems of obtaining men with the proper qualifications, tables of organization were grossly inadequate, so that promotions were often difficult, or even impossible, to carry out.

Fortunately, the more remote the post, the less actual rank meant. A man's capability in handling the complexities of the tasks to be performed was given greater importance than his rank or rating. Nonetheless, the usual jealousy and bitterness were to be found, especially when promotions or lack of them were considered to have been unfairly handled.

After cessation of military action in the theater and with the reduction of strength, promotions became even slower. Because of confusion or conflict over jurisdiction, in some medical units the table of organization was suspended for very long periods of time, with a freezing of the status of all assigned personnel.

To the extent that promotion and demotion were rendered less useful, as either a motivating or a disciplinary force, one of the most commonly used methods of command control of behavior became ineffective.

Quite late in the war, Mount McKinley National Park (Alaska) was made available as a recreational facility for morale purposes. It was useful mainly for air force personnel and remained unavailable for most of the remaining forces because of transportation difficulties.

Alcohol

Practically no alcoholic liquors were available, except for limited rations for the officers, until quite late in the war. Such rations were resented by the enlisted men. There were sporadic raids on medical alcohol, pilferage of "torpedo juice" from submarine stations, attempts at smuggling by merchant seamen, and amateurish tries at forbidden brewing and distilling at various remote points. All of these had little effect, and for the most part, alcohol in any form was unavailable for long periods of time. The futile command efforts to raid stills and to court-martial bootleggers led to considerable amusement among the troops.

Entertainment

With very few exceptions, there was no theater. Some 16-mm. films were released even before their first showing in the United States, but these were in short supply and had to be transported laboriously from post to post, to be viewed repeatedly in the absence of the arrival of new ones. Many were lost in transit, as were the portable projectors which had to be hand-carried to the outposts, along with their generators.

At the posts, there were either no women at all or, at most, a few Red Cross workers and a few nurses. Rarely, a bedraggled USO (United Service Organizations) troupe would appear, generally to be marooned by bad weather for considerable periods of time. But by and large, men had no opportunity to act out around women, and to get into difficulties. Under the circumstances, the men resented the presence of women as tending to stir them up.

Gambling

Gambling was, of course, an outlet, but was severely reduced in its effectiveness by the severe degradation of the value of money in the area. Since the men had nowhere to spend their money, they tended to assign most of it home. What they did keep had so little use for them that gambling had much less psychological value than in normal surroundings. There were some exceptions; one man handed in $30,000 in cash to be put in the hospital safe when he was hospitalized for an illness. He had been a professional gambler in civilian life.

There was nothing to buy. The post exchanges would get dribbles of merchandise which would be sold out immediately, but there was practically nothing that had any real value for the men. A rare watch or a shortwave radio or a camera would become an object of exchange. A watch worth, say, $25, might go through a series of sales and might finally be sold for hundreds of dollars, which obviously had no relationship to its value or its usefulness.

Leadership

In the absence of the usual devices for controlling individuals suffering from personality deviations, leadership played a particularly important role.

The following is an example: At Dutch Harbor, two organizations were located in proximity. One was a southern National Guard unit, the officers and men of which had lived in close relationship with each other in their hometowns, and would again after the war. The educational, cultural, and economic levels of the group were not very high. But group solidarity and dedication to helping each other were evident. Despite the fact that the Special Services officer attached to this outfit was a chronic inebriate who had to be protected periodically by hospital admission, his men had every bit of equipment for recreation that could be begged, borrowed, or stolen. The medical officers of this unit were also most protective of their men.

The neighboring northern National Guard unit was made up of a considerable proportion of college men. In command was an older officer under great pressure to do his job successfully. Unfortunately, he manifested

increasing evidence of hypersensitivity and suspiciousness. It was not unusual for him to recommend men for promotion one day and shortly thereafter to prefer charges against them. Under these conditions, the breakdown rate of both officers and men in this organization was four times that of its southern counterpart. Reports on several of these men seen at the 185th Station Hospital follow.

Case report.—Captain, 29 years old, married 2 years. Chief complaint: Upset stomach following episode of drinking; spells of moodiness.

Father, 65, former professional man; has very decided views, hard to get along with. No history of mental illness of familial disease.

Patient has always tended to be independent; goes his own way. At odds with father during high school. Wanted to leave college during 2d year, but stuck it out and graduated; worked successfully for 2½ years after college. Tried living at home and writing; moderate drinking during this period. In National Guard, 1931–34; inducted into Army in 1940 with NG. In Alaska for a year as 1st lieutenant. Occasionally moody and withdrawn.

Was considered to have done a very good job in the Army for a considerable time; was promoted to a captaincy.

During the past few months, increasing tension in his organization. A marked turnover in officers. Increasing pressure has been apparent in relationship between senior and junior officers with evidence of nervousness on both sides. Patient has reacted to this by increasing retirement into himself, depression, tension, irritability, and a resort to a few episodes of drinking during his evening hours, as a result of which he would be ill the following day. This has been extremely disturbing to his commanding officer. He finally felt he could not stand having the patient in his command and asked for a psychiatric examination.

History: No childhood fears; occasional temper tantrums. Very sick with pneumonia at 9; tonsils and adenoids removed at 10; measles and mumps at 11. At 14, developed moderate stutter at time of father's ejection from his church, following a wrangle with the minister. Moderately athletic at high school; knocked groggy few times in football play. At odds with father during late high school. Graduated from college at 21; married at 27. Had many friends and acquaintances but known at times as a recluse.

No physical illness; no pathology revealed on neurological examination. I.Q: 121; mental age: 17 years, 8 months.

Rather subdued but not particularly depressed. Good insight into his situation. Denies habitual intoxication, although he admits to occasional drinking. Has been increasingly unhappy in his assignment. Feels he has not been particularly remiss in his work, but that there have been personality clashes on the job which have made it impossible for him to function effectively. Has had the feeling that everything he has been going through is temporary. No depersonalization or derealization feelings. No suicidal ideas. Some increased tension and irritability. No nightmares; no obsessions; no compulsions; no hallucinations; no delusions. Has felt that his situation was completely hopeless and has been trying to find an answer to his problems.

This is a sensitive man with certain personality problems. These, however, are not severe enough to preclude satisfactory service as an officer in the Army. The pressure in his present outfit has caused him to develop a reactive depression, of which his drinking is one symptom. Prognosis: Good.

Disposition board approved transfer to United States.

Final diagnosis: Reactive depression, mild.

Case report.—T/5, aged 27, member of Service Company. Divorced.

Chief complaint: Pain in back increased by exercise and lifting. Reports indicated he had accident 7 years ago, hit while working in oilfield. Injured left testicle and back. Frequent back trouble ever since, and because of this has been excused from exercises.

Considerable difficulty in past. During past few months, flareup of irritability and depression; recently having suicidal ideas and insomnia and nightmares.

Parents living and well. No history of familial disease. Had night terrors as a child. Finished 8th grade; always restless; ran away from home; played hookey from school; much switching of jobs. Divorced after 18 months of marriage. Killed a man in a gunfight a few years ago. Acquitted after spending 8 months in jail awaiting trial. In Army 2 years; in Alaska, 17 months. Has done fairly well here, except for restrictions placed on him by his back difficulty.

Heart normal except slight pulmonic systolic murmur. Slight limitation of motion of back. No muscle spasm. Atrophied left testicle. Small varicocele, right. X-ray reveals small amount of lipping from anterior superior border of 4th lumbar vertebrae. Hypertrophic changes on 4th L., minimal.

Tense, irritable, depressed man of normal intelligence. Feels at the end of his endurance. Has been having alternating bouts of rage and of depression with suicidal ideas. Is stubborn and superstitious. Has trouble keeping temper under control. Has walked in his sleep; some fainting spells; now is having frequent nightmares, difficulty getting to sleep, and frequent awakening in a cold sweat. Feels badly all the time. Thinks he is slipping; upset over the whole memory of his trial.

Presents picture of a "Psychopath" who is developing neurotic symptomatology under the stresses to which he is subjected here. As in many of these cases, it is the idea of being forced to remain under restricting conditions rather than the life itself which affects him. His back pathology is the peg on which his symptoms are hung, and in itself is a disturbing influence. There is a danger of a real break in his adjustment if he continues here.

Transfer to United States recommended by disposition board.

Final diagnosis: 1. Arthritis, hypertrophic, chronic, old, nonsuppurative, nonvenereal, minimal, 4th lumbar vertebrae, caused by accident in civilian life.

2. Psychoneurosis; severe; cause undetermined; manifested by tense depression and anxiety states.

3. Constitutional psychopathic state; emotional instability.

EPTI, LD: 1, 2, 3—No.

Case report.—Psychiatric summary: Outpatient; private, age 20. Extreme irritability, frequent fights, pains in neck and stomach, and fatigue.

Has always had difficulty getting along. Father died when patient was 13. Mother well; sister, 8 years older. Has never seen her since he was 6. She was so jealous of him that she had to leave home.

Has been shifted around from one unit to another in the Army and has been on the verge of trouble time and again. Has been hospitalized often for various complaints, but little pathology has ever been found.

Usual childhood diseases; never went in for sports. As a child, would kill cats for fun. Enuresis until 10. Temper tantrums at 12; walked in sleep as adolescent. Many fights with parents; ran away at 17, wandered about, arrested once for unlawful entry. Had few friends. Joined Canadian Army; deserted after 3 months because didn't want to go abroad. In Army over a year; AWOL [absent without leave], court-martialed. Small, rather tense fellow. No pathology on neurological examination; physical examination normal throughout. Psychiatric examinations reveal evidence of profound personality disturbance. Excitable, suspicious, jealous. Has many ideas that people have it in for him, that they laugh at him and talk about him. His constant drive is to outwit

and to maneuver around rules. Is extremely hot-tempered, stubborn, irritable. Has many fights, all of them induced by his own behavior. In these, he grabs a gun or knife or meat ax and has to be restrained by those around him. Smokes to excess and occasionally drinks.

In addition, there is a thin neurotic covering to his psychopathy, he is moody, and worries about his health and about his irritability. Has many fears and frequent nightmares of violence. Gets nauseated, dizzy, and weak, and has palpitations at time. His back feels weak, and he gets pressure feelings around his head.

Severely disturbed psychopath who has been in trouble in the past, and who has just been kept going over the past months by psychotherapy. He is potentially dangerous and would undoubtedly end up in the guardhouse if retained here.

Disposition board recommended transfer to United States.

Final diagnosis: 1. Constitutional psychopathic state; emotional instability. EPTI.

2. Psychoneurosis, moderate, cause undetermined but related to #1, manifested by irritability, tension, sleepwalking, and vague psychosomatic complaints referable to gastrointestinal tract. EPTI, LD: No.

MORALE

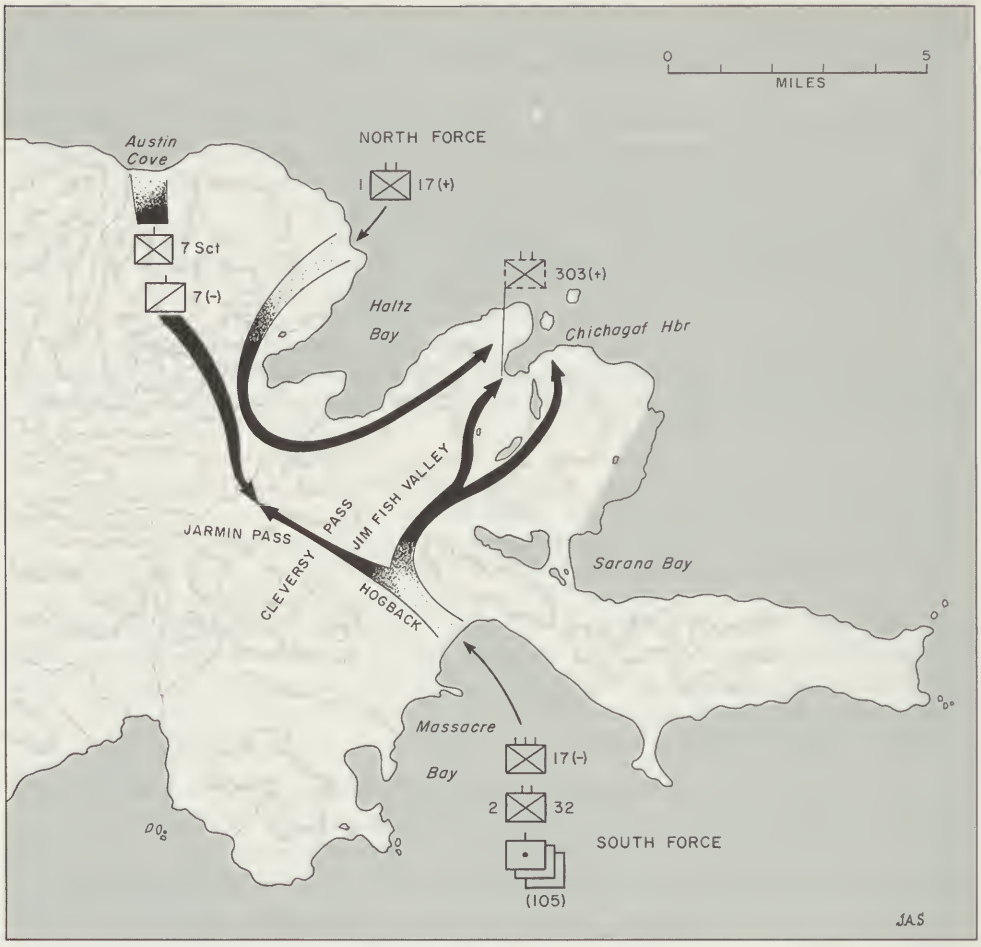
During Active Military Phase

The Japanese occupation of the Aleutian Islands of Attu and Kiska, in June 1942, posed a threat of possible future invasion. By January 1943, the 7th Infantry Division was selected for the reduction of enemy forces on both these islands.

On 11 May, elements of the 17th and 32d Infantry Regiments, with attached artillery and logistics, including medical support, landed unopposed on two separate points on Attu (map 33). Although delayed by terrain, by difficulty in communication, by supply problems, and by the usual effective tenacity of a well-entrenched and fanatical enemy, Attu was secured by the end of May. Total casualties for the invasion included 553 killed in action, 1,159 wounded, 2,205 diseased, and 437 injured.[34] Although some of the casualties were evacuated by ship and air to hospitals at Adak, Fort Mears, Fort Greer, and Fort Richardson, the great majority and all the severely wounded went by ship directly to ports in the United States.

Planning for this operation had been done in San Francisco at Western Defense headquarters, and apparently no one familiar with the wet, cold climate of the Aleutians was included. Clothing issues were selected for operations in dry, rather than wet, cold climate. For this reason, the predominant cause for hospitalization and evacuation was exposure resulting usually in immersion foot or trenchfoot. Also, it should be pointed out that the 7th Infantry Division which was a desert-trained organization had no acclimatization or indoctrination or clothing for cold, wet Attu.

[34] It appears that, in the data in this discussion, frostbite, trenchfoot, and other effects of cold have been classified as diseases. In the final statistics for World War II, these conditions will be reported as nonbattle injuries. *See also* Medical Department, United States Army. Cold Injury, Ground Type. Washington: U.S. Government Printing Office, 1958, p. 85, for data on the Attu campaign, which show 614 admissions due to disease and 1,518 admissions due to nonbattle injury.—A. J. G.



MAP 33.—Landing on Attu, 11 May 1943.

During the latter half of July 1943, the Japanese, realizing the futility of attempting to hold Kiska, evacuated the island. The invading troops of the 7th Infantry Division and attached units, on 14 August 1943, found only empty fortifications.

During the period of active military buildup and operations, the work necessary for survival kept everyone fully occupied. There was time only for working, eating, and sleeping. Under these conditions, no morale problems were observed.

Fort Glenn, on Umnak, reported:[35]

Arriving directly from the United States in January (severe weather conditions in the area are a matter of record), the men slept in pup tents for days, on the ground

[35] History, 186th Station Hospital, 22 Mar. 1944, p. 4.

for months, were rationed fuel, had no fresh fruit, vegetables, milk, bread, or butter. There were no social activities, no recreational facilities, no post exchange, and soon no tobacco, etcetera, and no post office. The fact that the first payday was 2 months late made little difference * * *. These men were good soldiers, practically all of them volunteers for foreign duty with at least 1 year's service. They had work that kept them busy long hours each day and seemed to take everything as a matter of course. It is interesting to note that none of these men became mental casualties during the period of construction when the hardships were greatest.

A similar situation existed at Amchitka: [36]

At about the time our men were knee deep in mud, Tojo's boys paid us a few visits by air, and the reaction of the Medical Corps to those raids was most unusual. Instead of any fear complex overcoming the men, it actually acted as a stimulant to tired bodies and uneasy minds. For most of these men, it was their first sight of the enemy and the planes above virtually buoyed drooping spirits. It relieved the monotony of the daily routine, gave the boys the thrill of battle, and at least they could see what we were fighting * * *. It is interesting to note that morale was not one of the foremost problems at this time mainly because after a hard day's work the men were too tired to feel sorry for themselves. It was well that this was so because no facilities were available for entertainment, such things at "Rec" halls and "Day Rooms" being unknown. In fact, even after huts were constructed as living quarters for personnel, they at all times were ready to vacate them immediately and return to tents so that the huts could be used to care for battle casualties. About the only form of diversion at this time was a weekly movie, shown in the mess hall; gambling; and fishing.

All in all, despite the lack of recreational facilities, the boys felt that they were part of the war. There was a certain amount of tenseness about each soldier because of the proximity of the enemy and the anticipation of battle. Not until the "fall" of Kiska did morale become any kind of a problem

The report which follows gives a good picture of the situation on Shemya during the first months after the end of the Attu campaign. Here supplies had to be transferred to lighters, 100 tons at a time, from Attu, or flown in, a few tons at a time.[37]

We didn't get to see the U.S.O. shows, at least not while I was in Alaska, but it is my understanding that Special Service will be along a little later. In the early days, we had no entertainment. Work was the best type. At the time I left, we had been in this place close to 6 months and had only 16-millimeter films which we saw very rarely, and most of them were as old as the hills. The chaplains have a few organs which were used for singing purposes. There were a few books and a few games which, however, had a limited use. Other than that there wasn't anything. No place to go or nothing to do. The nearest town was about 1,600 miles away, and that had only 400 or 500 people. I don't think we saw more than a dozen different movies since we arrived at that station. I must say, however, that this isn't true of all places up there.

Our big problem was shipping, and in addition we had no harbor. Other places with better facilities were getting things much more regularly than we did. Attempts were made to correct this, but the possibilities are small because we had to depend chiefly on air transportation, which was limited. The recreation problem was a vital factor in these NP cases. The soldiers know that there is no place to go and nothing to do and doing the same thing day in and day out, along with the bad weather, just gets

[36] History, 42d Station Hospital, 17 Apr. 1944, pp. 3–4.

[37] See footnote 24, p. 698.

them down. They can't even get a glass of beer or Coca Cola, but as I said before, there is little that can be done because of the shipping difficulties.[38]

e. Nutrition.—We had almost all "B" oversea ration. Fresh meats were rare. I would say that "B" ration was satisfactory from a nutritional standpoint. I didn't see any nutritional deficiences because of it. I think most of the soldiers ate all of it because they were usually very hungry, but it wasn't palatable after a while. After 150 days straight on this ration, one can't look a piece of Spam straight in the face. We had a nutrition officer on the post who did a very good job of checking messes to see that they served the right diet, etcetera.

The island of Attu had a good harbor so that supplies could come in more easily. Shortly after the period reported from Shemya, the food situation on Attu was described thus: [39]

e. Nutrition.—We had a nutrition officer. The preparation of food was closely observed in order to avoid unnecessary waste of the mineral and vitamin content and to decrease the waste of food in general. There was no evidence of deficiency in nutrition. Occasionally, fresh meats were available; if not, it was always possible to get canned meat. During the last few months, at least half of the time fresh vegetables were available. Refrigerator warehouses were located in the area. Dehydrated food was perfectly satisfactory. We had powdered milk, which was utilized in puddings, pies, cereal, and cocoa. Not many men drank powdered milk as a beverage. Mechanical cows make powdered milk more palatable because of adequate mixing, but they are not necessary because the men got milk without drinking it.

The milk problem was an important one. One of the greatest sources of jealousy of Army personnel for men of the Navy was the latter's possession of good reconstituted milk that tasted like milk. The Army's use of mechanical cows came later and was a great help. When ice cream mixes were available, they, too, were of great significance to the men. On occasion, however, there was disappointment when batches of artificially flavored mixes proved unpalatable.

Eating was one of the few sources of satisfaction that remained available to the men. Even in the face of chronic depression, previously discussed, food intake tended to remain high. At times, this seemed to be relatively independent of appetite. This may be related to the higher caloric needs of the cold climate. This phenomenon has been reported for other cold areas.

During Inactive Military Phase

As the combat phase passed by, the problem of maintaining morale was recognized as one which required special attention. When the frantic efforts to fortify the Western Aleutians gave way to the more prosaic tasks of maintenance and supply, the problem intensified.

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[38] In 1944, a wharf was built on the exposed shore of the island by driving in piles. This allowed large ships to dock and unload for a brief period so that supplies could be brought in for the airport construction. It was destroyed in one of the violent storms usual in the area, with the enormous pieces of piling tossed into the air like matchsticks.

[39] Report of Medical Department Activities in Attu, Col. H. White, MC, Commanding Officer, 328th Station Hospital, 21 June 1944.

After Kiska was secured, the mail from home contained such questions as "Why are they still keeping you up there? Isn't the fighting over?" Feeling that their efforts were unrecognized and unappreciated, men reacted with periods of acute depression, frustration, and resentment. The Japanese, with their "Tokyo Rose" broadcasts, succeeded in intensifying the feelings of loneliness and frustration of the men.

There were counterbalancing forces. The Army did what it could through lectures, articles in local post papers, and radio broadcasts to make the men feel the value and necessity of what they were doing. The men acquired a sense of achievement out of their struggle against their common enemy, the weather. They could, as Jones [40] pointed out, take pride in their ability to withstand long, long months and years of uninterrupted service. "We can take it!" This kind of self-therapy could not be artificially inoculated. It had to grow spontaneously among the men and was a factor in producing group solidarity as well as a product of it.

The struggle against the unknown under the strange conditions which existed in the theater had important psychological consequences. First, it convinced those who were there that no outsider could know or understand their particular conditions of military activity or even of existence. By the same token, it made for the solidarity of the group, especially in its struggle with the hostile outer world and the stranger.

In the face of the struggle against the climate and terrain, pride could develop and hold sway. Against the repeated military frustrations and exasperations, the expected gripes and complaints served to preserve the illusion of final mastery. And in the midst of the boasting and griping, came the stories of heroes triumphing against the forces of nature, against the perfidious foe, and against the stupidity of man.

For the healthy men, these stories served as release and outlets and were often adaptive in nature. The disturbed men wove them into the fabric of their difficulties and used them in whatever way their particular illness required.

The general lack of information and communication prevented normal correction of distortions and misinterpretations. The situation was much like that on shipboard, except that, in this instance, the islands were the ships and the crews were often 15,000 strong. To make it more difficult, the stays away from home port were often of more than 2 years' duration.

To the extent that prideful or boastful types of stories bore a relationship to the truth, they could be used for morale purposes. It was a sign of strength to defeat the weather, the terrain, and the strain of long, isolated service, and to face danger, pain, and privation.

But the beliefs in untruths were another matter. It was not conducive to morale to believe one's own intelligence reports were faulty and that the

[40] See footnote 6, p. 688.

Japanese, as shown by Tokyo Rose's broadcasts, knew everything by way of spies and informers close at hand.

Nor did it help to have stories spread that the theater was deliberately kept above allotted strength by slowing rotation, to further someone's political ambition; or that bombers did not take off in pursuit of enemy carriers because a commanding officer was drunk and would not take responsibility.

More distressing, but inevitable, were stories based on slips in official judgment, such as that of the delivery by air of a load of manure for an admiral's lawn.[41] But perhaps such stories were countered by the merry tales of the major who blew away seated in the latrine.

All in all, the men tolerated the service inequalities that permitted naval officers to have their bachelor officers' quarters equipped with a working bar and supplies of liquor, or the fighter pilots to fly in liquor in place of ammunition.

Overweighing all this, there was the serious threat to morale based on the unconscious equating of North Pacific service with punishment and exile.

Yet, among the great mass of men serving in the area, one could see the sustaining effects of the fantasies which made the white expanses of the north symbols of adventure, exploration, noble deeds, and strength.

Welfare, Social Service, and Recreation

Opportunities for recreation gradually improved at some posts, as shown by the following reports:

From Amchitka, in 1944: [42] "There are a number of excellent theaters on this post, movies are shown in hospital to patients three times a week. There is a service club, noncommissioned officers club and officers club on the Island. These are popular places of recreation. For recreation of patients there are small day rooms in each ward, in addition to a day room in the TO building."

From Dutch Harbor, in 1944: [43]

> The post library is well stocked with books of all kinds, and is patronized by all personnel. The Navy library is available for Army use, and there is a branch library located in the patients' day room. The post radio station is on the air fourteen hours a day with recordings, transcriptions, local talent and news broadcasts from the United States. Numerous USO shows, GI troupes, and local talent shows have brought much added pleasure to the troops. Special Service and Red Cross have provided radios for both the patients and the detachment. The hospital maintains teams in the following sports: bowling, basketball, and softball in the various seasons. League competition is sponsored by Special Service in conjunction with the Navy. Playoffs in tournaments attract many personnel on the post. Gym facilities and bowling alleys are now adequate since the re-

[41] Morison, *op. cit.*, p. 15.
[42] History, 42d Station Hospital, 1944.
[43] History, 185th Station Hospital, 1944.

duction of post strength. Softball fields are placed in condition during the summer months by Utilities.

This past year, a track meet was held between the Army and the Navy. A football team, under the direction of an officer and the Red Cross official, was organized and played games with inter-island teams. Mountain climbing and bicycle races were also sponsored. Boxing, wrestling, and ping pong tournaments were conducted between the Army and the Navy.

Reading was a major recreational occupation and a very good job was done in providing reading material. The demand, however, for comic books far exceeded that for any other kind of literature.

The radio programs were very heavily weighted in favor of western songs and hillbilly refrains. Popular female vocalists also had a great vogue.

Occupational Therapy

From Amchitka, in 1944:[44]

* * * Considerable time is spent each week in physical reconditioning. Some of the occupational therapy equipment consists of wood carving, and wood work, metal work, clay modeling, leather work, knotting, plastics, weaving, and various games * * *. There is no outside program that can be relied upon due to inclement weather. Red Cross program: There is now a full time Red Cross worker (female) assigned to the hospital. There was a definite need for a worker here and her efforts are much appreciated by the patients. The Red Cross on this island have been very cooperative and have done much good.

Throughout the area, officers and men worked out their own forms of occupational therapy. Photography was one source of satisfaction. Everything had to be improvised since little, except for occasional batches of film, was available locally. Enlargers were contrived with great ingenuity. Ways of washing film in cold water had to be found. But most of all, experience had to be gained in dealing with the flat, unusual lighting. And at last when prints were laboriously brought forth, the vagaries of censorship still had to be dealt with.

Outdoor Recreational Activities

The wind, fog, nature of the ground, and the near-freezing temperature of the water made organized outdoor recreational activities extremely difficult to carry out even when the situation at the posts had settled down. Lack of transportation made gymnasiums unavailable to many of the men.

It is hard to portray the major effort required to go from one part of a post to another in the face of the wind, fog, and horizontal snow. Except under unusual conditions, the simplest venture such as visiting or going out to play cards required a strong act of will. Evening travel during periods of blackout was particularly difficult and frequently hazardous.

Only twice in over 2 years in the Aleutians was it possible for the

[44] History, 42d Station Hospital, 1944.

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writer to lie in the sun without a shirt. Even on those two occasions, it was necessary to seek shelter from the wind in a foxhole.

At Dutch Harbor, a group of medical officers obtained a flat-bottomed boat (which had been used as a ferry before the evacuation of the civilian population). To maintain it for fishing use required climbing down the sides and under a bridge to chop and shovel out the ice and snow which generally had accumulated. When fishing, one member of the group was delegated to watch the layer of clouds along the mountain ridges for any sudden increase in their movement, a signal for immediate departure for home base to avoid the imminent storm.

The great difficulty in transportation prevented motility. There literally was no place to go. Officers were encouraged, after long service in the area, to go to neighboring posts to get a change in scene. But because of the weather, a journey to a post on another island 20 miles away might mean a transportation delay of weeks in getting back, so this was a decidedly restricted procedure.

As Gelbman [45] pointed out, morale activities which were compulsory had less success than those which could be stimulated voluntarily. The Red Cross recreational workers performed exceptionally well in promoting such voluntary activities.

The chaplains and their assistants did wonderful work in the theater and played an important role in morale activities. In their efforts to be available to the men in the outfits, they faced hardship and continual danger throughout the war. A great many of the Special Service activities that existed were carried out by them. On many occasions, they transported the projectors and 16-mm. films which were the main source of outside entertainment available.

There was a revival of interest in religion among Army men of all faiths. A respected chaplain would find among the men who gathered to hear him many who were not of his own persuasion.

Extension and correspondence courses provided useful outlets for the men and opportunities for self-improvement. The Bering Institute functioned as the result of devoted efforts volunteered by men who organized and taught the courses. Concerning it, Gelbman reported:

> Education.—The "Bering Institute" which provided optional courses in a wide variety of subjects was well attended. The teachers volunteered their services. The courses depended upon both the available instructors and the desires of groups of soldiers. For example, courses were given in economics, mathematics, bookkeeping and accounting, philosophy, and music appreciation. Each military station undoubtedly has some men capable of presenting courses in which a surprisingly large number of soldiers are interested.

At some posts, on-the-job training was offered. This was only practical when men did not have to be replaced according to MOS (military occupa-

[45] See footnote 5, p. 688.

tional specialty) number. Late in the war, men were trained and assigned locally at some posts. This was of great morale value.

Group Identification

Owing to the close contact between Air Forces, Navy, and Army personnel, a sense of participation was created even where Army activities were largely of a maintenance nature. Thus, the Army men identified themselves with the airmen who daily went out on their weather missions, intelligence flights, defensive sorties into impossible weather, and bombing expeditions at maximum ranges against Japanese bases in the Kuriles.

Many planes were forced to take refuge at Russian airports at Kamchatka, where they were turned over under lend-lease arrangements. The airmen were returned to the United States, frequently traveling around the world in the process.

There were always casualties among the airmen. Living in close contact with them, the Army men shared vicariously in their triumphs, failures, and catastrophes. Air Corps medical officers felt free to call on Army psychiatrists to help out with acute cases.

One young Air Corps pilot was seen because of hysterical blindness precipitated by having an unmanned B–17 bomber flown just over his head by a 100-mile-an-hour gust of wind as he drove his jeep up a steep road to the airstrip.

Just as the blurring of distinctions between services was forced on the men by long-continued residence together on a remote island, so the common problems and hardships tended to produce a group identity which permitted a partial breakdown of old prejudices.

Negro and Caucasian troops were kept in close contact with each other. Little difficulty arose, regardless of whether the troops were from the North or the South. The free mixture of patients was carried out without difficulty and to the general benefit of morale.

Army psychiatrists were called in consultation by naval medical officers. A typical case seen was of a young enlisted man sent in supposedly for a hysterical paralysis of his arm. The paralysis turned out to be a mild brachial plexus injury induced by turning a stuck overhead valve on a submarine.

The men in the Army also cherished the adventures of the submarine crews on their outmoded S-boats as long as they remained on the scene, those of the "Alaska Navy" men on their picket boats battling against impossible odds of weather and combat, and, last but not least, the exploits of the Alaskan scouts, many of them Aleuts, on their daring intelligence raids.

Morale was extremely high among the men on submarine duty. One young sailor, asking to be allowed to return to his ship 10 days after a knee

operation, was told it was improbable that he could go up and down the ladders so soon. His rejoinder was that he had slipped out of the hospital a few days before to try it and "he could do it just fine!" He was allowed to return to duty on his ship.

Until the end, the Japanese continued to carryout their own intelligence expeditions by sea and by air so that the illusion at least of military action persisted.

Then, too, there were the mysterious Russian ships which fueled at some of the old whaling stations away from the American military establishments, since they were not then at war with Japan. Occasionally one of these ships would be wrecked, and some of their frozen survivors would be picked up by American aircraft rescue crews and brought back to an Army hospital.

The breaking in half of a number of U.S. freighters provided more heroes to be rescued. And by and large, the men of the merchant marine won the respect of the military men of the area despite the inevitable jealousies over pay.

Much of this was never officially disclosed because of war secrecy and censorship, but passing by word of mouth as it did, it served to raise the morale of the men.

Mental health lectures to the troops proved very useful. These provided a chance for men to discuss their fears about the effect on their health of climate, food, water, and sexual abstinence. But what was perhaps more important, it gave the psychiatrist the opportunity to see relatively well-adjusted men and to overcome the impact of constant contact with the ones who were disturbed. Also, it allowed the men to get acquainted with the psychiatrists and to realize that they were available to them in time of need. As one man reported: "I had the most terrible dream I have ever had. I was going crazy, and I couldn't find you."

No single item seemed more important than the idea that the psychiatrist was there if he was needed. This feeling that his presence was a protection against the feared breakdown was an important factor in establishing a good working relationship with both officers and men.

Experience demonstrated that line officers, for the most part, sought only fair and appropriate help from the psychiatrists in connection with the disposal of misfits.

Thus, it was not a question of "hard" or easy neuropsychiatric policy but of one proper for the time, the place, and the military situation.

Although "hard" neuropsychiatric policies could hold men on duty temporarily, when such policies were applied unnecessarily, they did so at high cost to morale, a subsequent increase in the rate of breakdowns, and at the expense of occasional suicides.

A great deal of the time of the psychiatrist had to be spent interpreting the meaning of psychiatric policy to line officers at all levels of command,

whose distortions of Army and of Alaskan Department directives were common. It would have been helpful if a theater consultant neuropsychiatrist could have been available to coordinate the work and to help clarify the shifting policies toward psychiatric disturbances.

It is one of the paradoxes of the North Pacific situation that, with the lowest psychiatric breakdown rate of any theater, there should have been so much concern about the possible misuse of medical evacuation in connection with psychiatric problems.

Unfortunately, there was greater difficulty in identification between groups when it came to the officers and men in inland Alaska and those on the Aleutian Chain. High Alaskan Army officers had the reputation of not liking to travel out "the Chain," and their visits were infrequent and appeared perfunctory. During the early years of the war, there were persistent rumblings about high command conditions in the theater as they affected the welfare and morale of the men. These culminated in complaints through the Red Cross and subsequent investigations and reorganizations.

TREATMENT

General Considerations

At no time was it contemplated that long term treatment of psychotic patients or of very severe psychoneurotic patients would be carried out in the theater. Consequently, the function of the neuropsychiatrists in connection with such cases was limited to diagnosis, handling of acute episodes, presenting the cases to disposition boards, and giving supportive treatment until the patients could be evacuated to Barnes General Hospital, Vancouver, Wash., in the United States.

As previously noted, the 185th Station Hospital, at Fort Richardson, became an evacuation hospital through which most of these cases passed. After 1944, it was forced at times to serve many of the functions of a general hospital.

Because of many delays in evacuation, the handling of these severe cases merged into periods of brief therapy.

Sodium Amytal (amobarbital sodium) or, in its absence, Pentothal Sodium (thiopental sodium) was at times employed for abreactive interviews in cases of acute traumatic reactions. A few instances of prolonged sleep treatment were also noted. Subcoma insulin treatment was used on occasion.

Combat Reactions

A few of the combat reaction cases from the Attu campaign, already referred to, were sent to hospitals in the theater, and the occasional cases

sent in for treatment by the Air Corps also received treatment by sedation and psychotherapy before evacuation.

All reports from the theater agreed with those from other areas in that the more immediate the treatment and the closer to the area of danger, the better the results.

During the period of active fighting on Attu, psychiatric casualties were given rest, encouragement, whisky, and Sodium Amytal; a high percentage of them were sent back to duty. Only the highest praise can be given to the medical officers of the 7th Infantry Division for their handling of these cases under the most difficult circumstances and in the absence of organized neuropsychiatric facilities.

Other Acute Psychiatric Disturbances

In addition to the usual peacetime types of psychoses, occasional cases of schizophrenic-like behavior were seen, lasting a few days and subsiding spontaneously. Symptomatic treatment was all that was required.

A few cases of "shellshock" were seen in civilian construction workers who had contracted the illness in World War I and were suffering from a flareup. One such case subsided spectacularly when forced by the psychiatrist to remain in contact and to observe the antiaircraft fire against enemy planes (which fortunately turned back without attacking).

Traumatic Reactions in "Normal Men"

The tendency of the well-compensated, successful, outstanding "100% American Boys" to react as if suffering from a traumatic reaction was always surprising to the medical officers as well as to their own companions. Where illness or operation or accident suddenly dispelled their illusions that nothing could overcome them, these patients seemed to collapse as if they had no inner defenses; as if they had never had experience with being afraid. An example of this follows.

Case report.—One man broke his leg in a ski accident. The fracture knit well with no physical complications. The man had been an outstanding soldier in his group, with no previous history of psychiatric disturbance. During the convalescence he was tearful, asthetic, slept poorly, and had repetitive nightmarish dreams. Treatment which was designed to make him aware of his deep-seated fears gradually helped him to regain his confidence but the convalescence was long delayed.

Other similar cases were seen following illnesses, simple operations, and other acute medical procedures.

The effect on the medical officers was devastating. The surgeons, particularly, hesitated to do elective surgery for fear of the patients' prolonged, painful, convalescent periods which were foreign to their medical experience. They were grateful for anything the psychiatrist could do to clarify

the underlying dynamics and to demonstrate ways of helping the ailing patients.

Individual psychiatrists devised different techniques for conveying insights. Ward rounds, conferences, lectures, formal courses, and casual conversations all had their uses.

Some psychiatrists served as chiefs of medical services, others as chiefs of other sections in the hospitals. Two became commanding officers of station hospitals. In these capacities, they continued to share their special knowledge and, in turn, to broaden their own education.

Psychoneurosis

The less serious cases of classical psychoneurosis did well on outpatient treatment, and there was agreement that simple early psychotherapy could relieve a high percentage of these men and keep them on duty status. The local availability of psychiatrists for this purpose often determined the success or failure of this program.

Where men had to be transferred away from their own outfits and hospitalized to obtain treatment, the results were far poorer, and evacuation was likely to be the outcome.

In contrast to the compensated "normal" men whose decompensation was just discussed, these psychoneurotics tended to come through emergency situations well. Only after the emergency was over did they react as if to the sudden realization of what might have happened. Some of them developed their difficulties only when on the point of rotation or at the point of discharge from service.

Neurotic Personality Deviations

The cases of neurasthenia, hypochondriasis, psychosomatic disturbance, and personality disorder with a neurotic facade were far more difficult to treat. They were extremely trying to the line medical officers because of their extreme chronicity and lack of response to medical handling.

There was steady pressure on medical officers and, particularly, on the psychiatrists to dispose of these cases through medical channels.

Many of the medical officers and the line officers found it difficult to realize the extreme inner fears that these men held of being disbelieved and, thus, of receiving inappropriate treatment and handling. The apparent paradox of having the men become worse when they were given light duty assignments and blind reassurance was most upsetting. It was possible to demonstrate that such reactions could clear up when the men were helped to realize that the new assignments were not merely preludes to new and devastating duties. Simple symptomatic treatment with vitamins, posture

exercises, mild sedation, group and individual psychotherapy, along with attempts at proper assignment, carried many cases of this type on duty status for long periods of time.

Severe Personality Deviations

The severe personality deviates presented the same insoluble problems in the North Pacific theater that they presented throughout the world. There was also the great reluctance on the part of line officers to attempt disposition through "Section VIII" or, later, through AR 615–368 proceedings.

As noted previously, these patients were deprived, because of conditions in the theater, of their usual mode of response; that is, acting-out. With this unavailable, other manifestations of their difficulties came to the attention of the psychiatrist. With very strict command and a "hard" medical policy, psychiatric manifestations with suicidal or assaultive behavior appeared. With other combinations of command and treatment attitude, other symptom pictures were seen, as described in the case report which follows.

Case report.—One man in his early thirties was referred because of back trouble. He had a history of an old injury and a minimal amount of pathology demonstrated on X-ray. He had never made a completely satisfactory adjustment to civilian life, having left before completing high school, having had two unsuccessful marriages, and having episodes of gambling and heavy drinking. He had shifted around from one hazardous occupation to another. He had been highly paid and his services were in demand. He was drafted and assigned to an engineer outfit, about to be shipped to Alaska.

Things had gone fairly well for a time in a somewhat freebooting outfit which was frantically preparing an advanced airstrip. With the arrival of the Seabees [Naval Construction Battalions], his outfit was transferred and he found himself out of his original, closely knit group. He was overheard threatening to do violence to an officer over some fancied injustice in his new outfit, and soon found himself assigned to a cadre scheduled to go to a post out on the Chain.

His new commanding officer was a good leader, and attempted to help. Shortly after his arrival, however, the patient found his way to the hospital with his back complaint. He was given appropriate treatment for his back trouble and his situation was reviewed with him and with his commanding officer by the neuropsychiatrist. He was put in charge of an isolated unit erecting housing, and allowed to go at his own pace. He came in for weekly psychiatric conferences. With the subsidence of his back trouble, he became very tense and depressed but agreed to make a try at working things out, as any possible situation in the U.S. looked no more satisfactory to him. In return, the neuropsychiatrist, although he could make no promises, agreed that if conditions became intolerable he would take what steps he could to effect medical disposition.

With this in mind, the patient worked effectively without major difficulties for many months. When his company officer was transferred and a lieutenant fresh from the States took over, trouble began. The new officer would stand for no exceptions to routine. No steps the neuropsychiatrist could take had any influence on him. The patient, who had continued treatment, made an effort to adapt to the new situation, but in a few months was again in a tense, irritable depression and near the breaking point. On the

neuropsychiatrist's recommendation a disposition board returned the patient to the United States because of his depression.

Under good conditions of leadership, assignment, and treatment, a number of similar cases were kept functioning for considerable periods of time. But with many, the difficulties created by these men for the officers and for the other men in their outfits made the attempted solutions impossible.

NEUROPSYCHIATRIC FACILITIES AT VARIOUS POSTS

Umnak

The post at Fort Glenn, Umnak, was activated on 17 January 1942. The 186th Station Hospital was opened in September 1942. Captain Burns came to the post in December 1942 from Adak where he had served previously. He remained on Umnak until the end of 1944, doing outstanding neuropsychiatric work. Captain Frank served from December 1942 to February 1943 before being transferred to Dutch Harbor. Capt. Edward J. Biancarelli, MC, after 8 months on outpost duty at Chernavski, served as Captain Burn's assistant from mid-1943 until late in 1944. Capt. Louis J. Vitale, MC, served at Umnak from December 1943 through January 1945.

The types of neuropsychiatric disorders encountered at the 186th Station Hospital follow.

		Number	*Percent*
Diagnosis:			
Psychoneurosis		171	52.7
Constitutional psychopathic state		45	13.8
Dementia praecox		40	12.3
Manic-depressive psychosis		3	.9
Unclassified psychosis		10	3.0
Mental deficiency		11	3.3
Epilepsy		4	1.2
Miscellaneous		41	12.6
Situational reaction	17		
Simple adult maladjustment	3		
Enuresis	3		
Combined sclerosis of spinal cord	1		
Syncope	1		
Homosexuality (questionable)	1		
Schizoid personality	3		
Organic brain disease (questionable)	1		
Sequelae cerebrospinal meningitis	1		
Posttraumatic cerebral syndrome	1		
Malingering	1		
Language difficulty	1		
No evident neuropsychiatric disorder	7		
Total		[1] 325	

[1] Of these, 216, or 66.46 percent, were returned to duty; 109, or 33.54 percent, were evacuated.

Dutch Harbor

At Dutch Harbor, the 185th Station Hospital was not activated until 7 September 1942, although troops had been on the island since 8 May 1941, and the Japanese had attacked 3–4 June 1942.

In about April 1942, a lieutenant who had some prison psychiatric experience was put in charge of a neuropsychiatric ward at what was then the Station Hospital at Fort Mears. The general approach to the patients who came to the hospital was to make their hospitalization more unpleasant than their illness. Patients were forced to labor from morning until night at cleaning, scrubbing, and digging foxholes and at other similar tasks. Those who would not, or could not respond to this, were treated with typhoid injections and other painful therapies. At times, strong suggestion and hypnosis were attempted. Under this regime, patients were glad to leave the hospital, and even a few mildly psychotic patients were restored to their units. Only the most acutely disturbed psychotics were considered for evacuation.

When the lieutenant in charge had to be returned to the United States in November 1942, the ward was turned back into a general medical ward, although a few psychiatric rooms were retained. The rigorous handling of psychiatric cases was replaced by symptomatic treatment and the use of reassurance and suggestion. Patients were retained in the hospital for as brief a period as possible before being returned to duty but tended to return with shifting symptoms.

In February 1943, the neuropsychiatric section was established under Captain Frank. A new ward was opened where neuropsychiatric and convalescent ambulatory patients from the medical service were maintained. Diagnostic and outpatient psychiatric clinics were established. Neuropsychiatric cases in considerable numbers were presented at weekly medical conferences and at monthly medical meetings.[46]

With the availability of an increased amount of neuropsychiatric service, many cases which had been dammed back by previous policies and attitudes were presented by field medical officers. Under the impact of increasing length of Alaskan service for men at the post, with pressures resulting from the development of a paranoid reaction on the part of a commanding officer of one of the infantry units on the post, and with the influx of a large group of unstable men from the Disciplinary Barracks at Chenango (p. 691), the breakdown rate, in the fall of 1943, reached a peak, going from 1 to 3.3 per 1,000 per month. With the elimination of many of the most disturbed cases and with the relief afforded by the announcement of a rotation policy, the incidence of cases rapidly subsided.

A neuropsychiatric outpatient clinic was established in March 1943. In the course of a year, 597 interviews were given, 139 patients were given

[46] History, 185th Station Hospital, 1944.

superficial psychotherapy, and 47 were given more intensive therapy. When possible, patients whose condition was considered hopeful were treated as outpatients. What little progress in therapeutic success was attained was incidental to this outpatient handling.

Most of the psychotic cases were discovered at an early stage. By a constant encouragement of normal activity in the company of convalescent patients from the general medical service, overt psychotic manifestations were markedly reduced. In almost all cases, there were signs of improvement before the patients actually left the hospital. Initial heavy sedation proved helpful in selected cases.

A combination of methods of psychotherapy was employed. These included group psychotherapy, occupational therapy, reeducation, postural exercises, and individual psychotherapeutic interviews. Through consistent consultation with all the medical officers, a common point of view was established, especially regarding the psychosomatic problems encountered. In addition, an effort was made to maintain contact with troops throughout the post and to emphasize the fact that the psychiatrist was always available when needed. For a time, the psychiatrist served as chief of the medical service.

During the year, the 185th Station Hospital disposition boards returned 210 patients to the United States. These cases came from all services in the hospital and are grouped as follows: [47]

Diagnosis	*Number*
Undiagnosed	2
Neurological	26
Mixed psychoses	3
Major abnormalities of mood	26
Schizoid and schizophrenia	33
Other diseases with associated personality psychopathy	35
Other diseases with associated mental deficiency	19
Psychoneurotic disorders	66

Shemya

United States Troops, Shemya, had moved into the island on 29 May 1943. The 329th Station Hospital was activated on 26 September 1943. Major Frank was transferred there from Dutch Harbor as a neuropsychiatrist in March 1944 and remained until replaced by Captain Jones in December 1944. Captain Jones remained until May 1946, becoming commanding officer of the hospital during his last months there. He provided an account of treatment on Shemya from January 1945 to July 1946, a period extending far past the end of the war.[48] It is quoted at length as representing a particular point of view.

[47] Annual Report, 185th Station Hospital, 1944.

[48] See footnote 6, p. 688.

My personal attitude in serving as the island's neuropsychiatrist may have had little or nothing to do with the low non-effective rate but it is of interest for I was one of the "ninety-day wonders" turned out by the School of Military Neuropsychiatry at Mason General Hospital. * * * Although novices in psychiatry, those of us who went to the school felt that we were experts in the philosophy of neuropsychiatric administration as advocated by its commandant, Col. William C. Porter, * * *. Also, most of us were very much impressed by * * * Capt. Herbert Spiegel's * * * observations of the Tunisian campaign was that many soldiers did not become psychiatric casualties simply because they were not permitted to become such.

The assignment on Shemya was approached with the point of view that the mission of a military neuropsychiatrist is essentially the same as that of all medical officers, namely, "To protect the fighting strength." It was felt then that a person should be kept on a duty status as long as performance was adequate or until his tour expired regardless of whether or not he was unhappy or neurotic.

The above point of view was fortunate for it proved to be identical with that held by the great majority of the officers and men on the island. [The Commanding General of the Alaskan Department had called attention to the critical manpower situation in January 1944 in a letter stating] that it was incumbent on all commanders to make the best use of personnel available and one who permitted the discharge of an enlisted man in preference to making the necessary effort to place him properly and train him failed to meet command responsibilities. Also, the policy was established that no individual would be evacuated who did not require further hospitalization.

War Department Circular No. 81 [13 Mar. 1945] stated in part: "* * * diagnosis of any type of psychoneurosis implies sickness and disability of some duration. * * * It will be applied only when its use is justified by the existence of a clinical picture which satisfies the criteria for psychoneurosis as established by good medical practice. In determining disposition of cases, it must be clearly understood that there are many causes for noneffectiveness other than sickness. * * * When an individual is suffering from psychoneurosis which is not incapacitating he will be returned to duty. * * * The majority of the factors which determine the mental health of military personnel are functions of command. In other words, the main job of preventive psychiatry must be done by commanding officers of the line. It is a responsibility of command to obtain maximum utilization of manpower by providing proper incentive and motivation, and such reclassification, reassignment, rest, relaxation, and recreation as exigencies of the military service permit."

Shemya proved to be an ideal place to carry out the principles of neuropsychiatric administration as outlined above, for there was only one psychiatrist assigned to the island and thus it was impossible for a person to shop for the cheapest psychiatric diagnosis which might lead to a discharge.

Most soldiers with neuropsychiatric complaints were evaluated as outpatients and were studied at length while continuing to perform duty. An active outpatient consultation service was maintained and the other medical officers on the island were encouraged to use it in all cases except emergencies. Most patients were admitted after outpatient consultation. Aside from the psychotic and the completely disabled neurotic, any soldier who was inadvertently admitted directly to the neuropsychiatric service of the hospital without prior outpatient consultation was quickly worked up and returned to duty for further evaluation on that status. The longest time spent in the hospital by a soldier who later returned to duty was 21 days; the shortest was two days, while the average was 8.5 days.

Many of the medical officers assigned to the 329th Station Hospital were fortunate in that they also served as unit doctors in dispensaries. For over a year, in addition to other duties, I had the opportunity to hold sick call for approximately 1,500 men in the

port area. Therefore, psychiatric evaluation and treatment were available for a quarter of the island's troops at a dispensary level.

No record was kept of the number of men seen as outpatients on consultation, but 200 would be a conservative estimate. Most of them were seen about three or four times. Most stopped coming as soon as they could see that their complaints were not sufficient to warrant evacuation. It seemed that symptoms developed for a secondary gain often disappeared when the gain was not forthcoming. No estimate can be made of the great number of psychiatric problems evaluated on routine medical and surgical rounds as O.D., as hospital reconditioning officer, on sick call, etc.

Psychotherapy was offered to most neurotics and to some psychopaths. It was of an explanatory and supportive type and it did prove of value in anxiety states and certain somatization reactions. The psychotherapeutic interviews were based on the proposition that the soldier's symptoms were legitimate and justified but that they were of a temporary nature and could be treated on Shemya as well as anywhere else. Usually the soldier was told that his symptoms were a part of his emotional response to coming to Shemya and that he would become asymptomatic when he finally decided to make the best of a poor situation.

Regular interviews were scheduled as often as the patients would care to attend. Although the average soldier desiring treatment came 10 to 12 times, one outpatient came weekly for 14 months before being rotated home. Some psychotherapy was done over the telephone, calls being received almost any time of the day or night. Often patients would drop by the hospital for a chat after an absence of several months. As observed by Burns, this was particularly true of psychopaths. It appears that the psychiatrist was about the only officer and symbol of authority with whom a psychopath could "blow off steam" and get away with it.

Only 10 men were disposed of through administrative channels during the 18 months' period. Such disposition was recommended for a few others following study but certain company commanders did not want to initiate the proceedings as required by regulations. For the benefit of the morale of those soldiers who were trying to do a good job, the company commanders preferred to put up with some inadequate soldiers rather than reward them with a trip home.

Jones reported on achieving a high degree of success in keeping men on duty status. His noneffective rate was 1.07 per 1,000 in comparison with 6.1 per 1,000 for the Army as a whole for the first half of 1945.

From 1 January 1945 to 2 May 1946, there were 85 admissions of military personnel to the neuropsychiatric service of the 329th Station Hospital, with the following diagnoses:

Diagnosis	*Shemya* *Percent*	*Army overseas, 1945* *Percent*
Psychoses	41	9
Psychoneuroses	41	69
Psychiatric personalities and others	18	22

Jones noted that the daily noneffective rate for psychoses on Shemya was about the same as for the Army as a whole, while the Shemya rates for the other conditions were about one-ninth of those for the whole Army.

It must be noted, however, that the admission rates per 1,000 men for 1945 were 11.6 for Shemya compared with a rate of 10.5 for the total Alaskan Department, with rates ranging from 2.9 to 17.7 for the other Alaskan stations (table 74).

TABLE 74.—*Admission rates per 1,000 men per year, 1945, by station*

Station	Mean Army strength	Weighted average admission rate [1]								
		All causes	Injuries	All disease	Communicable disease	Common respiratory disease	Influenza	Venereal disease [2]	Psychiatric disease	Organic neurological disease
Adak	8,562	435	78	357	127	98.6	4.1	5.4	17.7	2.2
Amchitka	4,703	409	105	304	98	84.8	.6	1.9	13.2	2.0
Camp Earle	5,905	476	97	379	138	116.9	.7	2.7	8.6	1.4
Fort Glenn, Umnak	684	289	99	190	57	46.7	2.9	4.4	2.9	----
Ladd Field	3,968	435	61	374	201	142.6	24.4	11.8	3.0	----
Fort Mears, Dutch Harbor	624	442	107	335	148	132.8	----	8.0	4.8	----
Nome	1,437	428	67	361	176	105.8	----	32.6	12.5	2.1
Fort Richardson, Anchorage	8,046	461	75	386	145	103.0	15.8	10.1	8.5	1.0
Shemya	5,263	546	123	423	206	180.3	1.0	2.3	11.6	.6
Whittier	824	940	229	711	424	300.1	1.2	10.6	15.7	----
Other stations [3]	2,363	502	99	403	174	120.5	11.0	23.7	3.0	----
Alaskan Department	41,245	469	91	378	156	120.8	7.2	8.3	10.5	1.2

[1] Weighted average admission rates computed as follows: Number of admissions for entire year is multiplied by 1,000 and the product divided by the average Army strength for the year.

[2] New, not existed prior to entry service.

[3] Includes Fort Randall and all stations closed during 1945.

Source: Statistical Health Report, WD MD Form No. 86ab.

Moreover, after V–J Day, psychiatric disability rates in the Army dropped very sharply. Separations for psychoneurosis went from 54.7 percent in 1945 to 14.6 percent in 1946.[49]

It would be difficult, therefore, to demonstrate that the firm psychiatric policies on Shemya were responsible for the quoted results.

The high percentage of psychoses among the hospitalized cases suggests that other types of cases were either being held back or being kept on duty to the breaking point.

Once again, the point must be made that psychiatric policy had to be appropriate to the realities of the existing situation. The firm policy advocated by Jones had a good chance to work under the conditions he described when the war was drawing to a close and thereafter when the term of overseas service was known. One could not attribute the results to the particular psychiatric policy, however, rather than to their being a reflection of the total situation.

Fort Richardson

The post at Fort Richardson at Anchorage had been one of the earliest activated in Alaska, on 27 June 1940. The 183d Station Hospital was activated on 7 September 1942.

One of the first of the psychiatrists to be assigned to the North Pacific Area was Capt. (later Maj.) Robert S. Berns, MC, who arrived there about the time of the bombing of Dutch Harbor in June 1942. He inaugurated the first air transport evacuation of psychiatric casualties from Alaska to Barnes General Hospital, and accompanied this group. He continued at the 183d Station Hospital until the end of 1943. Captain Gelbman served at this post from January 1945 to June 1945, coming from Adak. Captain Haralambie came on from his post at the 184th Station Hospital at Fort Greeley at Kodiak to serve as neuropsychiatrist and, later, as commanding officer of the hospital in 1946.

Maj. William A. Scott, MC, spent from September 1942 to September 1943 at Elmendorf Field. He was not officially assigned for neuropsychiatric work but performed a considerable amount of work unofficially through command requests.

The report which follows, from the 183d Station Hospital, in 1944, gives a comprehensive picture of neuropsychiatric activities at a station hospital on the mainland of Alaska as they gradually evolved. This hospital served as a substitute for a general hospital and, after 1944, served as an evacuation hospital.[50]

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[49] (1) Allerton, W. S., and Peterson, D. B.: Preventive Psychiatry—The Army's Mental Hygiene Consultation Service Program With Station Evaluation. Am. J. Psychiat. 113: 788–794, March 1957. (2) Brill, N. Q., and Beebe, G. W.: A Follow-up Study of War Neuroses. Veterans' Administration Medical Monograph, 22 Jan. 1955, p. 37, table 23.

[50] Report, 183d Station Hospital, 1944, appendix 9: Neuropsychiatric Section Report for 1944.

1. Organization

a. Physical.

(1) The Neuropsychiatric Section is housed in two wards. The main ward is Ward 25. This is a closed ward designed primarily for psychiatric patients and those psychoneurotic patients whose illness is of a severe enough degree to warrant close supervision and watch. This ward can accommodate 25 patients. It contains 9 single rooms into which may be placed the more sick or disturbed patient. The remaining beds are in the two smaller and larger wards within Ward 25. The other ward is Ward 41. This is housed in a Quonset Hut and designed to accommodate 14 patients. Every attempt to remove any neuropsychiatric implication in the ward is made here. There are no bars on the windows and the patients are allowed the same privileges here which are accorded other patients in the hospital. There are radios for both wards. In addition, a movie projector is available for use on Ward 25.

b. Personnel.

(1) The psychiatrist in charge of wards 25 and 41 and Chief of the Neuropsychiatric Section is a Captain. Prior to his taking over these duties with the 183d Station Hospital in September 1944, he was Chief of the Neuropsychiatric Section for the 184th Station Hospital at APO 937. Prior to his overseas assignments, he had matriculated through the School of Military Neuropsychiatry, and had been stationed at Bushnell General Hospital, Brigham City, Utah, for 17 months where he was in charge of one enlisted man's ward and the officer's ward, both in the Neuropsychiatric Section. During this period he was the neuropsychiatric examiner for all officer retirement cases. Prior to his commission, he was an instructor in Cornell Medical School.

(2) Until recently, the nurse in charge of wards 25 and 41 was a first lieutenant, a very capable and qualified individual with psychiatric experience in various psychiatric institutions prior to coming into the Army. The present nurse in charge is a second lieutenant who has also had psychiatric experience prior to her coming into the Army.

(3) Enlisted Men: The department has been unusually fortunate in having an enthusiastic and very loyal group of enlisted men for ward attendants. A great deal of this spirit comes as a result of the very capable leadership exemplified by the Ward Master. He has been in this theater 16 months. He has had experience working in psychiatric institutions prior to his coming into the Army. In addition to the Ward Master, there are 8 other enlisted men.

c. Training Program for Enlisted Men.

(1) In addition to the hospital training program now being carried out for the enlisted men, various cases of interest are discussed with the men. This instruction is carried out on an informal basis. Demonstration of various procedures such as spinal punctures, narcosynthesis, application of wetpacks, etc. are carried out. In addition to this, the men are given instruction in occupational therapy in order that they may help the patients with occupational therapy.

2. Professional Work.

a. The function of the Neuropsychiatric Section may be divided into the following categories:

(1) *The prevention of neuropsychiatric casualties:* This, in the opinion of the writer, is the most important function because it is felt that the time to do psychotherapy is before the soldier breaks down, a great deal of the psychiatrist's time is devoted to outpatient work. Many soldiers and officers have been interviewed and treated psychiatrically as outpatients. These patients are sent from the Air Base Dispensary, the 184th Station Hospital Dispensary, the Replacement Pool Dispensary, the 183d Station Hospital Dispensary, the Alaskan Department Dispensary, and from the various companies by their commanding officers. When interviews have indicated that the soldier's difficulty lay in his maladjustment or to assignment not in line with former training or

experience, the commanding officer is contacted and suggestions for reassignment are made. The Red Cross is occasionally contacted for investigation of home problems.

Since it is felt that hospitalization of borderline cases often tends to crystallize many neurotic symptoms, every effort is made to treat such cases as outpatients by the psychiatrist. In addition to treatment of the patient, this writer has felt that education of the officers in the handling of their men is important. With that in view, lectures have been given to both commissioned and non-commissioned officers on the prevention of psychiatric casualties among their men. The officers have been encouraged to talk over any problems they may have pertaining to men in their company with the psychiatrist. Many of the commanding officers have availed themselves of this service, and it is hoped that more will do so as they become more psychiatrically minded.

The various chaplains of this Post have been welcomed to drop in for discussion of problem cases. The cooperation between these two services has resulted in benefit to the soldier.

(2) *The treatment of psychiatric casualties* is another important function of this section. Treatment may be divided into three types:

(a) Superficial psychotherapy which consists of listening to the patient and pointing out his difficulties; exhortation; reassurance; suggestion.

(b) Correction of causative factors such as misassignments, difficulties at home (by aid of Red Cross).

(c) Deeper psychotherapy including narcosynthesis for patients with deeper and repetitive anxieties.

Occupational therapy is considered part of the treatment. This consists of cleaning the ward, weaving, drawing, painting, working with ivory, etc. Those patients in the open ward are required to attend the rehabilitation program carried out by the hospital. A moving picture is shown twice a week to the patients on the closed ward. Group singing is carried out at least once a week.

In accordance with War Department regulations, no shock therapy is being carried out at this station.

(3) *The disposition of neuropsychiatric casualties* is of major importance from the point of view of the patient and the effect of such a disposition on the morale of his company. Every effort is made to salvage psychiatric patients. Of the total number of psychiatric patients admitted from this command and as transfers from other posts, 263 were returned to the States, 136 were returned to duty and 2 were given a [CDD] certificate of disability for discharge. The accompanying * * * lists the various types of neuropsychiatric casualties admitted to this hospital:

Neuropsychiatric Section Statistical Report

		Number
Admitted during 1944		405
Discharge to duty	136	
Discharge to States	263	
Transferred to surgical service	3	
Transferred to medical service	17	
C.D.D. [Certificate of disability for discharge]	2	
Total		421
Constitutional psychopathic state	36	
Psychoneurosis	152	
Epilepsy	30	
Lues	11	
Other diseases of the nervous system	31	
Dementia praecox	74	
Administrative admission	15	

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Mental defectives	4	
Brain tumors	2	
Neurofibroma	2	
Spinal cord tumor	1	
Hypertension	2	
Alcoholism–chronic	9	
Alcoholism–acute	14	
Psychosis, unclassified	5	
Measles	1	
Gastric ulcers	3	
Manic depressives	8	
Paranoia	1	
Total		401

The other 20 patients will be picked up on the Surgical and Medical Services [Report].

LESSONS LEARNED

General

The experience of World War II showed that normal men could live and function effectively under difficult, isolated arctic conditions but that their efficiency decreased with time. The men needed to be screened and to be properly conditioned both physically and psychologically before assignment for such duties.

Good leadership, the knowledge that the task to be done was necessary and appreciated, the provision of as much accurate information as possible about conditions, and a knowledge of a probable time limit to the assignment were important ingredients in determining how long efficiency and stability could be maintained.

The need for command ingenuity and flexibility was very great in these isolated areas. The assignment of alcoholic, paranoid, or arteriosclerotic officers brought difficulties which extended in a widening circle.

During periods of military buildup or military activity, there were occasional manifestations of anxiety among men and officers. But morale tended to be high and men continued effective. With increasing length of isolated service, the ability to function effectively decreased and chronic depression appeared. Eighteen months to 2 years seemed to represent the point at which efficiency fell off most sharply and difficulties became ingrained.

Restriction of activity and motility intensified these problems, whose solution was made extremely difficult by the limitations of climate and terrain. Encouragement of travel to neighboring posts, of expeditions to points of interest, and of hunting, fishing, and other active recreational interests indicated token steps in the right direction.

Special Neuropsychiatric Problems

Under the conditions existing in the North Pacific theater, acute mental breakdowns did not occur frequently. When they did, they were difficult to cure even after the men had left the theater. These acute breakdowns were similar to those seen elsewhere and were not peculiar to the area.

Chronic depression was a practically universal adaptive reaction of the men serving under isolated arctic conditions. As it deepened, efficiency, initiative, and adaptability were impaired. Once it became established, it tended to persist long after the men had departed from the situation in which it had developed. While such chronic depression was not unique for the North Pacific theater, its universality and its permeation into all phases of life made it a major problem.

Countermeasures

Practically all individuals were influenced by inner fantasies about the arctic. Some of these fantasies were hopeful and protective, others were disturbing and frightening. Among the latter were those which equated arctic service with punishment, imprisonment, and exile. Unfortunately, these were the ones which were encouraged by the shifting of misfits to newly established posts farther out on the Chain. What was desperately needed were morale-building measures to ward off the depressive reactions.

Techniques such as those designed to build up the self-esteem of the combat infantry could have been applied here to give special recognition to troops in arctic service. It would have been important to have built up a feeling that the difficulties of such service were recognized and appreciated. In addition, a sense of group identity would have been fostered in a constructive way.

Identification with a group or particular outfit was in itself a major source of strength for the men, and continued assignment to that group was an important protective step. Assignment to casual companies often had a very disturbing effect and was a much too frequent practice.

Conclusions

Measures which reassured the men that their welfare was being safeguarded as much as possible, under the circumstances, promoted a hopeful attitude. Anything which confirmed the men's frightening fantasies tended to produce symptoms based on these fantasies.

Among things found to have such an effect were: (1) Threats to assign officers and men to arctic posts as punishment, and (2) the assignment to such service of misfits, alcoholics, delinquents, difficult individuals, and disciplinary cases. Under the harsh conditions of isolated arctic service,

the maladjusted men made even worse adjustment to military life. The most careful exclusion of psychotics, prepsychotic individuals, and those with serious personality deviations would have more than paid for itself in the increased efficiency of the normal men.

The notion that alcoholics, delinquents, or men with other sociopathic tendencies could function under conditions of isolation, because the opportunities for their acting-out did not exist, proved to be false. In the absence of opportunities for acting-out, other symptoms appeared. These individuals developed clinical pictures ranging from psychoses to manifestation of severe somatic illness.

If such individuals were to be maintained in military service, special outfits or special techniques of handling them should have been provided. They should never have been unloaded in isolated areas among normal troops. They became an almost intolerable burden to any regular outfit and thus tended to be shifted from one post to another to the disturbance of all with whom they came in contact.

The fears of the men of being shut off from the world also required active countermeasures on all levels. What could be achieved was done best at a command level. Unfortunately, the active and continuous steps needed to convey the realization that top command had a deep concern for the problems of the far-off and isolated men, and that they had not been ignored or forgotten, were not pursued. Visits from headquarters to various posts, with enough time allowed to acquire real knowledge of what was going on, may have been part of staff planning, but they were not carried through with consistency.

In this connection, a theater consultant for neuropsychiatry, by periodically visiting headquarters and the various isolated posts, would have been able to do a great deal to create a feeling of community of interest and understanding. He could have brought, too, a clarification of psychiatric attitudes.

The neuropsychiatrist demonstrated that he could contribute materially through his knowledge and insights to the well-being and military effectiveness of troops in the theater. In view of the increasing probability of extensive isolated service in the future, the experience and knowledge of dealing with such service gained so painfully during World War II should not be lost.

For the neuropsychiatrist to function successfully, there were certain essentials:

1. He needed proper contact with those phases of military planning in which his special knowledge and skills could play a part; that is, assignment and reassignment, recreation and morale activities, treatment of psychological phases of illness, and disposition of the men affected.

2. He needed a clear picture of his military responsibility. This required, however, the retention of sufficient flexibility of attitude to be able

to combine his therapeutic responsibility to the individual and his military anticipatory, preventive, supportive, therapeutic, and dispositive medical functions. Careful indoctrination, training, and experience were essential for the shift from an individually oriented therapeutic attitude to one of protecting both the group and the individual to the extent that the situation permitted.

He had to be secure in his own orientations with regard to illness and antisocial behavior and their possible overlapping. Where there was such an overlapping, he had to assume his share of the responsibility. In its absence, he had to be able to stand up for the assumption of responsibility by the line officers concerned.

3. He had to effect his therapeutic endeavors as immediately and as close to the source of the difficulty as possible. When he functioned in a dispensary or hospital, he had to integrate his activities with the work of the other medical officers. With them and with the auxiliary medical personnel, he shared his special skills and knowledge, since most of his therapeutic functions were carried out through them and their activities.

4. He required knowledge of the men's unconscious fantasies, hopes, and fears. He had to be able to understand their inner picture of themselves and their situation, as well as the reality with which they had to deal. He needed technical skill to help correct the distorted guiding fantasies and to help replace them with more realistically oriented inner pictures.

5. He had to operate in close contact with the military life of the officers and men with whose welfare he was charged. His communication with the troops as well as with the different levels of command needed to be as immediate as was feasible. In the North Pacific theater, there were obstacles to his effective function when, either because of personnel limitations or because of fears or prejudices on the part of command, liaison between them could not be effected. However, the ability of the trained neuropsychiatrist to make clear the nature of many of the problems and to institute effective action in regard to them helped to break down such barriers.

He had to present his neuropsychiatric findings in language comprehensible to command and at a level which appeared plausible to them. There was less difficulty in this respect with acute psychotic patients and severe personality deviates since, under the existing conditions, the latter usually became sufficiently sick to require medical disposition. The greatest difficulty came from the less acutely disturbed personality deviates. Here the neuropsychiatrist had to pay the most meticulous attention to communication and clarification of the problem of handling the individual cases.

He had to be able to withstand the inevitable disbelief in and opposition to some of the recommendations he made on the basis of his knowledge and insights, and had to be prepared to demonstrate their effectiveness. He had also to realize that, on many occasions, there was more than one way to

deal with difficulties and that alternatives to what he recommended might also be effective.

6. He had to recognize the limitations imposed on him by the existing stage of medical knowledge and by the military situation. Whenever the neuropsychiatrist assumed an overidentification with command and adopted an oversevere or hard attitude, difficulties tended to pile up. Troublesome borderline cases were refused consideration and, after a time, broke down physically or psychiatrically or were transferred to new posts farther down the Aleutian Chain, where their troubles persisted. On the other hand, an overdesire on the part of the neuropsychiatrist to be cooperative and please the line occasionally resulted in his being flooded with cases of questionable illness. In the long run, he was apt to find that he must be guided by his clinical findings and his clear knowledge of current theater policy.

7. He needed to be aware that he himself was not immune to the effects of long periods of arctic service. The neuropsychiatrist suffered in addition from the constant stimulation of his own hopes, fears, and frustrations through the repeated complaints of his patients. The most effective antidote to this kind of stress was the ability to carry on effective psychotherapy. Adequate training in this area and a sincere concern for his fellowmen were essential ingredients in this process.

From his experience, he became aware of the possibility of harnessing the sense of adventure and exploration, the feelings of openness and space, and the separation from turmoil and human pressures that were part of the hopeful fantasies concerning the arctic. The possibility that isolated arctic service was the prototype for much exploratory human activity to come served to make more pressing the need to learn and profit from the experience of these years.

Summary

In retrospect, what was learned from World War II North Pacific experience can be summed up rather simply:

1. Screening and assignment.—Men needed to be carefully screened before arctic assignment to eliminate psychotics, prepsychotics, and severe personality deviates. This included chronic alcoholics, drug addicts, delinquents, and criminals. It was demonstrated that none of these adjusted well to arctic life and were a serious burden to the other troops.

Limited-service personnel, also, needed to be assigned with great care. Many of the daily tasks in the arctic required physical strength, good sight and hearing, a fair degree of intelligence, and a reasonable degree of stability.

Officers assigned for arctic duty required special qualities of leadership to enable them to function under conditions where the usual techniques of command, based on reward and punishment, lost much of their effectiveness.

2. Isolation.—Because of the isolated nature of the service, special provision for both assignment and advancement in accordance with the individual's capacity and effort should have been made. Provision for local training of necessary specialists was desirable, since isolated units had to be able to function semiautonomously, and the usual tables of organization were most inadequate for such a situation.

3. Duration of service.—To the extent that military conditions permitted, a period of from 18 to 24 months seemed to represent the limit of most effective service.

4. Unconscious attitudes toward the arctic.—Command needed to do everything possible to overcome the unconscious beliefs of men and officers that arctic service was equivalent to imprisonment and exile. This required continuing emphasis on the positive value of the services performed. Men assigned for arctic duty needed to receive continuing indoctrination as to the necessity and value of their tasks and of the possibility of carrying these out normally.

5. Communication and motility.—Command should have given constant attention to maintenance of communication and some sense of motility for men and officers on practical as well as psychological grounds.

6. Morale.—For maximum efficiency of performance, the men's social needs had to be recognized and met insofar as was compatible with military demands.

Because so much of the duty was at isolated posts, men needed to be given the feeling that they were not forgotten. Through proper liaison and through frequent visits, command needed to make the men see that their difficult problems were understood and appreciated. Ways should have been developed to give special recognition to those who underwent the difficulties of arctic life.

The sense of achievement that came from combating difficulties was sufficient to build up morale during periods of military activity and danger. Once this period was passed, it was primarily the responsibility of command to see that morale was maintained. In this work, the neuropsychiatrist had a significant role and was able to play his part when called upon.

Identification with the group was a potent factor in morale. Insofar as possible, men should have been assigned to particular groups on the basis of their capabilities and kept together with these groups as long as the military situation permitted.

CHAPTER XX

"As We Remember It"

Lindsay E. Beaton, M.D., and *M. Ralph Kaufman, M.D.*

On 7 December 1941, the U.S. Army in the Pacific was almost completely unprepared to care for psychiatric casualties of war. To the best of our knowledge, no trained psychiatrists were on duty with the Armed Forces anywhere in the Pacific areas with few exceptions, such as Lt. Col. Stephen C. Sitter, MC, in Manila. By the end of the war, more than 200 psychiatrists either were on duty in the Pacific areas or had been on duty there. This chapter constitutes the personal record of these men and how they met the double mission of the psychiatric care of soldiers in rear and noncombat installations and those with combat reactions. Noncombat disorders constituted the major portion, so far as the number of cases seen. This is perhaps not always appreciated, for the average reader will think of the psychiatry of war largely in terms of combat. In the Pacific, at least, the psychiatric casualties arising in isolated noncombat garrisons certainly outnumbered the men who developed psychiatric disease in the combat situation.

To gain as wide coverage as possible of the psychiatric situation in the Pacific war against Japan, efforts were made to contact every medical officer whom the War Department had recorded as serving in a psychiatric capacity in any one of the Pacific theaters. More than 200 letters were written, to which we had approximately a 35-percent response. This chapter has been prepared largely from these replies, and we have made every effort to acknowledge their specific reports.

The plan of this chapter is, therefore, anecdotal. This is somewhat less of a handicap than one might think. The war in the Pacific was characteristically a war fought on many separate islands and on many diverse fronts. A rigidly chronological account would in itself have a certain falseness, for campaigns in the Southwest Pacific overlapped those in the South Pacific, as well as those in the Central Pacific. Early, no uniformity and no viable plan existed for psychiatric care in the Pacific; rather, plans first developed on isolated islands under the direction of whatever psychiatrist was on the ground or whatever medical officer was assigned psychiatric duties, be it in a division, a field hospital, or a general hospital. With the coming of consultants in the South Pacific, consistent planning and programing began to take shape. This chapter then becomes a record of the observations of the psychiatrists in the field. In a sense, such a reminiscent and observational kind of approach more closely represents the reality of the war in the

Pacific, as seen from the physician's standpoint, than would a smoother account written campaign by campaign and year by year.

In a larger sense, the accounts obtained from the various men in the field contain an overall cohesion. Experiences in the rear area installations, whether in Hawaii or Bora Bora, in Efate or on Green Island, were much the same. Similarly in combat, the situations and the problems were identical, whether the psychiatrists met them on Guadalcanal or Leyte, on Saipan or Iwo Jima. The reader will observe that this chapter is very much a record of similar problems, in widely separated parts of the Pacific, which were met by American psychiatrists in an amazingly standard fashion. Sparse as our psychiatric personnel was, their job in the Pacific was well done, considering the circumstances. It is a tribute to the training given to the "psychiatric 90-day wonders." Almost standard answers were found to problems, whether these were the noncombat problems of isolated garrisons or the problems created by specific combat stress. In reading the comments of the men who answered our requests for information, one is struck over and over again with the similarity of both observation and uniformity of the answers brought out as solutions.

BUILDUP IN THE PACIFIC

After the initial impact of the attack on Pearl Harbor (7 December 1941) and Clark Field (8 December 1941) and overwhelming of the slender medical facilities available both in Hawaii and in the Philippines, the Army immediately began to move hospitals and other medical units to the Pacific. Psychiatric personnel at first largely accompanied hospital movement. Later, division psychiatrists were authorized (November 1943). At the very end of the war, particularly in the South Pacific and Pacific Ocean Areas, psychiatric teams were constituted, not from personnel fresh from the United States, but rather from experienced men who had been on the ground for some months or years.

At the beginning of the war, initial psychiatric care was rendered by "psychiatrists" assigned to station hospitals, very few of whom had formal psychiatric training. In fact, many of the "psychiatrists" of the hospitals that moved overseas early were psychiatrists only by virtue of assignment. It was common in the Pacific that the last medical officer to join the unit was assigned to the neuropsychiatric service. Many of these men did exceptionally well and were so stimulated by their experiences that they later underwent formal psychiatric training and became practicing psychiatrists. Similarly, some medical officers who were given psychiatric responsibilities in divisions later chose psychiatry as a career, and we know of at least one division surgeon who is now a psychoanalyst.

The first movement of hospitals to the Pacific theaters went to build up rear areas. Hospitals moved to Australia to support the Southwest

Pacific Area, and to New Zealand to support the South Pacific Area. General hospitals also moved to the Hawaiian Islands to support the forces in the Central Pacific Area. Most of the large general hospitals remained in rear area installations throughout their Pacific experience. Many of the psychiatric personnel in these hospitals unfortunately had only remote contact with the combat phase of psychiatric casualties. Some of these hospitals later moved forward, but rarely far enough to obtain actual combat experience. A few of them received some personal combat experience when they were in the midst of a bombing.

After the first movement of the larger hospitals into the major rear area zones of communications, the secondary movement forward was mainly of station hospitals. Station hospitals in the South Pacific went to such bases as New Caledonia, the New Hebrides, Bora Bora, Tongatabu, and Samoa. In the Southwest Pacific, the Fiji Islands were early provided with hospitals, and when combat began in New Guinea, station hospitals were established there. During this phase, station hospitals were also located in the Aleutians and in the China-Burma-India theater.

As combat progressed and the ring was drawn tighter around Japan, hospitals were gradually moved forward. Ultimately, general hospitals were established in what were, by this time, rear areas. In the Southwest Pacific, this meant New Guinea and the Philippines; in the South Pacific, it meant New Caledonia. The Marianas and the more forward islands to combat never had more than station and evacuation hospitals. In the Pacific Ocean Area, ultimately, a general hospital was established on Okinawa. Throughout the war, combat psychiatry was performed by men attached to evacuation and station hospitals, to divisions, and, in the South Pacific and Pacific Ocean Areas, to psychiatric teams. In fact, it can be stated that, in the Pacific theaters, an all-out organized psychiatric effort to meet the combat problem in the field was made in only two operations—Bougainville and Okinawa.

BASIC CONSIDERATIONS

The problems of psychiatry in rear areas or zones of communications were surprisingly the same in all parts of the Pacific. It seemed to make little difference whether a garrison was established in a fairly civilized area, such as Honolulu (Hawaii), Nouméa (New Caledonia), Brisbane (Australia), or Auckland (New Zealand), or if it were established in the most primitive and tropical of situations, such as some of the Polynesian and Melanesian islands.

In all these garrisons, two particular kinds of problems existed. One was the usual gamut of psychiatric reactions that one would expect to find in males of the age of American soldiers. The usual run of psychoses, the customary psychoneurotic disorders, neurologic diseases, character dis-

orders, and the like were all found in about the proportion expected in the civilian population. The second arose from certain psychiatric diseases peculiar to the situation in which young soldiers found themselves. These circumstances mainly included separation from home and isolation in a strange part of the world, which was often interpreted as being threatening.

By and large, the American soldier seemed not to have been well prepared by virtue of his upbringing and early training for situations he had to face in the Army, whether it was in Europe or in the Pacific.[1] Homesickness and grievance against the forces which had produced this result were common to many soldiers. Few found any sense of adventure or of a maturing experience that might have made the military years in the Pacific of some personal value. Even among officers, such attitudes with their saving qualities were rare. We can go so far as to say that even among physicians in the service they were rare, as they were even among psychiatrists.

It has been striking to notice how, these many years after the conflict, many of our confreres are still nourishing complaints against the military for personal reasons, associated with distasteful circumstances of practice, lack of appreciation by line or medical command for work done, bitterness about lack of promotion, and the relatively few major decorations given to the psychiatrists in the Pacific. These negative attitudes cannot but have somehow influenced psychiatric care in the Pacific. They are made a matter of record here for the speculation of those who will analyze this historical account in the future.

Unusual Syndromes

On some occasions, unusual and specific psychiatric syndromes were noted on various islands in the Pacific, but the general run of psychoneuroses in the rear areas was probably the same throughout the war. The anxiety state, the efflorescence of various forms of character disorder, and, among the psychosomatization reactions, headache and backache were universal. Gross hysteria was rather uncommon in the rear areas except in the man of low intellect who might well have developed conversion or dissociation reactions in civilian life. It would seem, in comparison with the accounts of World War I, that gross hysteria was less common in World War II, at least in the rear areas. Also comparatively absent were some of the forms of anxiety reaction, which were common in World War I.

Particularly remarked was the low incidence of neurocirculatory asthenia, which evidently was an outstanding syndrome of World War I.[2]

[1] This statement was commonly made in World War II by medical and line officers. Yet, history shows that the men of a citizens' draft army, of whatever nation, have never been prepared for the hazards and hardships of war by virtue of upbringing and early training.—A. J. G.

[2] A common statement of psychiatrists in all theaters in World II. In actuality, rates of neurocirculatory asthenia were not high in World War I (*see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, appendix A, pp. 761–773). Neurocirculatory asthenia, an effort syndrome, became well known between the wars and may have given the unwitting impression of exaggerated prevalence during World War I.—A. J. G.

The authors remember only a single "epidemic" of DaCosta's syndrome (neurocirculatory asthenia), which was readily traced to a bored but conscientious medical officer, who was subjecting his Negro infantry battalion to a searching cardiac survey.

Quite striking were the many cases of what we diagnosed at the time as tension headache and functional low back syndrome. Certainly, these two syndromes must say something about, respectively, the repressed hostility of the American soldier in the rear area and the unwanted burden which he felt himself obliged to bear.[3] The hostility perhaps found some outlet in universal griping, in unbridled profanity, in universal and outspoken resentment of officer authority, and finally, for many men, in a sense of anger at the Government. In the Pacific, men resented the kinds of advertisements which were seen in stateside publications which they believed were designed only to elevate the morale of industrial workers in the United States. Resentment took the form of ventilation against union labor and against, on some occasions, the performers whom the men heard over the radio.

Specific Syndromes

Other psychiatric syndromes were more specific; for example, the very specific phobic reaction which centered on elephantiasis, with all of its overtones of sexual impotence, that occurred during the occupation of certain Polynesian islands in the first years of the war. A similar reaction occurred in SPA (South Pacific Area) troops to Atabrine (quinacrine hydrochloride), given for malarial control. Many men believed that Atabrine would produce permanent sexual deficit. So much difficulty was experienced in getting the men to take their daily dose that it was necessary for the platoon sergeant to insure at mess call that each man placed an Atabrine tablet in his mouth and swallowed it down with water or hot coffee.

No one can have had contact with soldiers during the war or censored their mail without being aware of the tremendous fears of sexual impotence that infected their thoughts. These fears were usually vague and poorly formulated, but found expression almost universally. The Atabrine and elephantiasis scares seem to have been the only specific, concrete situations which allowed the focusing of such fears. Probably, basically, we were dealing with the castration fears represented by warfare and with fears at a more preconscious level of men that they would be so long overseas that their sexual powers would decline.

[3] It should be recognized that these syndromes were not unique to the Pacific areas but were common to other theaters and to the Zone of Interior.—A. J. G.

THE HAWAIIAN AREA

As the buildup began in the Pacific in 1942, and continued into 1943, the Hawaiian Islands became the final rear base for all the Pacific theaters. This does not mean that all medical, surgical, or neuropsychiatric casualties were evacuated to or through Hawaii, even though it contained the most elaborate medical facilities available in the Pacific. Essentially, the Hawaiian installations provided the combined medical services of both the Zone of Interior and the zone of communications. Psychiatric syndromes and problems in Hawaii were largely those of a rear-area type. However, as in all rear area installations, many men evacuated for combat emotional disease were seen. In addition to the psychiatrists assigned to troops training in the Hawaiian Islands were those with some of the station hospitals and with the three major general hospitals.

Following the attack on Pearl Harbor, Hawaii saw no further combat. Until as late as 1945, however, Honolulu observed the blackout, though not because of any real need. Nevertheless, definite psychiatric disorders were found from troops either on garrison duties in various parts of the Hawaiian Islands or from troops redeployed for combat training, either before or after having seen battle action. The case in point is the experience of the 98th Infantry Division.[4]

The 98th was transported to the Hawaiian Islands from Camp Rucker, Ala., in March 1944. Its regiments were split up, one being stationed at Kauai, one on Oahu, and one on Maui. As it became evident that the division would function only in garrison, furnishing combat replacements to other units, emotional problems became paramount. An early experiment with group therapy was carried on with these soldiers under the direction of Maj. (later Lt. Col.) Kenneth G. Rew, MC. Major Rew, then the 98th Division psychiatrist, believed that a certain amount of benefit was accomplished in readjusting the man to a new job in the service and compensating for the loss of division cohesiveness and morale. This was probably a more severe group problem than that faced by divisions who had returned from combat for conditioning and further training. It was the universal experience of such divisions from forward areas that men were lost, because of a complete failure of motivation to return again to the front.

A similar gain in illness mechanism also occurred in men who were evacuated from combat areas to the general hospitals of Hawaii. Rew, from his experience as Chief, Neuropsychiatric Section, Tripler (later 218th) General Hospital, noted that the principal neuropsychiatric duty at Tripler was to decide which men should be returned to the United States and which could be returned to duty. He found that patients already in a chain of evacuation were so conditioned to returning to the "States" that it was

[4] Personal communication from Kenneth G. Rew, M.D.

difficult to send them to duty in the Central Pacific Area, and almost impossible to return them to combat.

Tripler General Hospital, and also the 147th General Hospital, functioned as educational centers for the psychiatric indoctrination of medical officers arriving from the United States, with assignment to units going forward.

Specific Psychiatric Problems

As noted by so many of the correspondents, Rew also commented on psychiatric disabilities of medical officers. The long wait before beginning active medical practice was difficult for physicians to tolerate. Medical officers were evacuated from the Central Pacific Base Command, ostensibly for some physical condition, when actually the difficulty was psychiatric. Even for the best militarily indoctrinated physician, who recognized the need for having medical facilities in various sectors, even inactive ones, it was always difficult individually to see why his medical talents should lie fallow for so long. Perhaps the most exasperating part of service in a true rear area like Hawaii was waiting.

Although of different quality, psychiatric disabilities arose similarly in newly inducted soldiers who arrived in the Hawaiian theater. Lonesomeness, the imminence of combat, and many other situational factors seem to have contributed. Rew noted a measurable amount of psychiatric disability in young soldiers who were frightened by the Army's venereal disease educational program. He suspected that more psychiatric casualties resulted from, than cases of venereal disease prevented by, this indoctrination. Other factors noted by Rew were the ever-present difficulty of the American soldier in adapting to an all-male environment, the loss of morale resulting from the practice of moving the individual from one unit to another, and, particularly, the inability of the average soldier to tolerate delay.

In contrast with the forward areas where the diagnosis of anxiety state, anxiety reaction, or anxiety neurosis was almost ubiquitous, psychiatrists in rear areas were more selective in diagnostic formulation. In the terminology of the day, cases were diagnosed stress reactions, situational reactions, and particularly character disorders. One doubts that such diagnoses could have been made in a forward area, where immediate combat anxiety colored every soldier's reaction, no matter what the underlying psychopathology. In retrospect, it may be suspected that probably the character disorders accounted for many of the casualties, and perhaps the majority (Rew). Genuine neurotic reactions, as Rew observed, could occur in capable personnel and often did not significantly interfere with their performance of duty. It has been stated that, in World War I, many of the flying units were constituted of men of very largely neurotic makeup, who yet performed gallantly and competently.

Disposition

The problem of disposition took a more subtle form in a rear area, such as Hawaii. In forward areas, disposition represented a simple alternative: could the man be rehabilitated on the spot and returned to some kind of local duty, combat or otherwise, or would he have to be evacuated? Once evacuated as far to the rear as the general hospitals in Hawaii or New Zealand or Australia, the patient was probably lost for Pacific service and certainly lost for return to combat service. Similar observations were also made about psychiatric casualties in other theaters, where communications were better and where the chance was greater of returning men forward from lesser distances than existed in the vast stretches of the Pacific. As a rule, the diagnosis of psychoneurosis was accepted, and men were discharged from military service for medical reasons. Rew held the somewhat controversial opinion that persons with emotional disorders diagnosed as "situational reaction" and "stress reactions" should have been discharged administratively as unsuitable for military service. The same disposition presumably would hold true for the soldiers with character defects, whose pattern disturbances just did not allow them to continue at forward area duty, whether that was combat or noncombat duty.

There are obvious lessons to be drawn from the Hawaiian experience, mostly those summarized by Rew. The avoidance of delay in assignment, some means of making the soldier feel his part in the war effort, an effort not to transfer men from one unit to another, and earlier definitive diagnosis and proper disposition might all have, in retrospect, contributed very materially to lower psychiatric losses in the Hawaiian Islands. Even in this rear base, far from warfare, the loss of soldiers to the Army was tremendous.

NEW ZEALAND

New Zealand brooked large in the South Pacific Area. It was simultaneously a recreation area, a staging area, a convalescent area, and a training area for the whole South Pacific. The medical situation and mission of the New Zealand installations were well summarized in an interview given by Lt. Col. James C. Fox, Jr., MC, in December 1944. Colonel Fox was the chief of the medical service of the 39th General Hospital at Auckland, having been with this unit from July 1942 until October 1944. We can do no better than to quote at some length from Colonel Fox's interview.

The 39th General Hospital was located in the suburbs of Auckland, New Zealand, about 4 miles from the center of town, on what formerly was a golf course. The climate was ideal, and the temperature varied between 40° and 80° F. during the different seasons. Some people call this a subtropical climate but I would say that it is a mild temperate climate. Excellent roads and good transportation were available. The inhabitants

were the New Zealanders of British stock and the natives who were called Maoris. Both of these groups were cooperative.

The 39th General Hospital was a 1,000-bed unit consisting of 35 Medical Department officers, 120 nurses, 500 enlisted men, and about 50 civilian employees. We always had attached personnel, such as casual officers and personnel from ship platoons. The strength of the organization fluctuated as some of our personnel were on temporary duty and detached service. The majority of the civilian personnel were typists but a few were classified as utility personnel. The personnel was adequate for a 1,000-bed hospital, but at times we had as many as 2,000 patients.

Our mission was to provide medical treatment for the patients that were evacuated from the island to island campaign at Guadalcanal, New Georgia, and Bougainville. In the early part of 1944, we were responsible for the medical treatment of the 25th and 43d Infantry Divisions. In addition to this, we acted as a station hospital for New Zealand and were responsible for the treatment of casual officers of the Thirteenth Air Force, who became ill in the rest areas. The hospital began functioning on 7 February 1943, and was still in operation at the time I left.

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Our area was very large, and it was approximately a mile from the main gate to the far end of the convalescent section. The arrangement of buildings was the same as that of the average cantonment-type hospital. The buildings were of wood and stucco with tile roofs. All modern facilities were available. The heating unit was not completely installed during our first winter in New Zealand; we had to supplement by using electrical heaters in some of the wards. The temporary bed capacity was 1,500 and, later, was expanded to 2,000. The highest patient census was 2,150 and the average daily census was about 1,500.

During the entire operation of the hospital up until October 1944, we admitted 25,000 patients, approximately 15,000 in the medical service and 10,000 in the surgical service. The total bed capacity of the medical service was 750. Each ward in the medical service consisted of 50 beds in most instances.

Malaria was the most prevalent disease. It accounted for 30 percent of all admissions. The average malaria patient remained in the hospital a week and was returned to duty. Atabrine was used for treatment, and we found no significant difficulties in the use of it. Patients were given Atabrine by roster under the supervision of a nurse, but we found that both officers and enlisted men were not taking it. We finally resorted to a policing system, the same as adopted by combat units in the field, to insure that the Atabrine was actually swallowed. Research work has been done regarding the immunity factors in malaria by allowing groups of patients to have a series of chills before treatment to determine whether or not they acquire immunity.

Extensive studies were also made of the Atabrine levels in blood while the patients were under treatment. The experiment on immunity is still in progress, and the indication at the present time is that a certain degree of immunity to the disease is incurred by actually having a series of chills. In other words, that individual is a little less likely to have a relapse than another individual, who is treated in the routine way immediately after he becomes ill. However, a further period of observation is necessary. In the use of Atabrine, we learned that, if it is promptly taken, it does prevent the critical attack of malaria in the field. It defers the attack and I do not believe there is any toxic or injurious effect from Atabrine.

There were a few cases of amebic dysentery. Bacillary dysentery cases were even lower. Dengue does not occur in New Zealand but some patients who were evacuated from New Hebrides and New Caledonia developed dengue after admission. There were no proved cases of filariasis.

Fungus infection was the third highest cause of admission to the hospital, with trichophytosis leading. From April until June 1943, there were several hundred cases

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of infected jaundice, but then it died out. We were only able to conclude that it was caused by virus infection, although we could not prove this. A large percentage of the soldiers were infected with hookworms. This did not keep them from performing duty but we did attempt to eliminate this condition. Hookworm infection ran as high as 30 percent to 40 percent in some combat units that had been located in Guadalcanal. We were convinced that this infection had been obtained in Guadalcanal and had not been just an infestation of the soldiers in the southern part of our country. We used tetrachloroethylene for treatment, as is advised by the Army. It was necessary to give repeated treatments in most cases to effect the cure. One or two treatments were not adequate.

Diphtheria cases involving the skin occurred in many instances. It was difficult to convince medical personnel in the theater of its prevalence. This disease was mildly epidemic. Undoubtedly, it was caused from natives, who were in the tropical areas with this infection.

There were, on an average, 10 nurses ill in the hospital at all times out of 120 to 150 on duty. A large number of them had upper respiratory infections. A few nurses had to be evacuated because they became repeatedly ill with one thing or another. There were a few NP cases among the nurses but not as many as I had anticipated.

In the latter part of his interview, Colonel Fox summarized the handling of psychiatric casualties in the 39th General Hospital, as follows:

Psychoneurosis was the cause of 25 percent of all admissions to the hospital. During the middle of 1943, we had so many types of NP patients being admitted that we couldn't give very much individual psychotherapy. Later on, both individual and group psychotherapy were used. Excellent facilities were available for occupational therapy and gymnasium work. The Red Cross was well staffed and very active. Patients were kept busy with outings and excursions during their period of rehabilitation. Shock therapy was used very little except when trying to improve a patient's condition so he could travel. Sedatives were used liberally.

The only time that we had an exceptional number of psychoneurotics in relation to our total number of patients was after the New Georgia Campaign. A large number of these were from two regiments of the 43d Infantry Division, the 169th and the 172d. Otherwise, I would say our experience was in line with what I have read in other theaters regarding the NP situation. Many officers and bomber crews from the Thirteenth Air Force were in our hospital. Some of these personnel had been serving long periods of duty and were suffering from occupational fatigue. Interesting observations were made following plane crashes in this sector. This was a particular anxiety neurosis in otherwise normal individuals. The Air Force had a very low rate of NP patients in relation to other units * * *.

About 25 percent of the psychoneurotics were returned to duty in the overseas theater * * *. A small percent was returned to combat units. Combat units do not wish to retain men in this category so it was difficult to place them. We used all that we had room for in our own organization. General hospitals and service commands in the theater are a suitable place to utilize this manpower. During my experience with the 39th General Hospital, I found it difficult to bring about reclassification and reassignment of these men to other units. The mechanism was very cumbersome, and many attempts to achieve transfer and reclassification were frustrated in one way or another.

I am rather pessimistic about the outlook for rehabilitation of patients with psychiatric disorders. Many of the analyses on this subject have been overoptimistic and not realistic. I feel that the average soldier who develops an anxiety state as a result of combat will be very difficult to rehabilitate for return to combat, particularly when he

is evacuated any distance from the forward area. However, it is possible to salvage many of these soldiers for noncombat duty, particularly in a safe and secure area.

Perhaps some of Colonel Fox's pessimism about the rehabilitation of patients with psychiatric disorders would have been tempered had he had the opportunity to serve farther forward where combat psychiatric casualties were treated successfully because they were treated early. By the time combat psychiatric casualties proceeded through the echelon of evacuation to New Zealand, their anxiety state had become fixed for obvious reasons and a return to duty could be achieved only at a noncombat level. Maj. (later Lt. Col.) Roy R. Grinker, MC, had the same experience, serving 500 miles behind the front in the Tunisia Campaign.

AUSTRALIA

The medical situation in Australia was not greatly different from that in Hawaii and New Zealand, although in some places the hospital facilities were a good deal less well developed. An example of the time is a report by a young psychiatrist, Capt. Joseph Biernoff, MC, which is cited to illustrate the critical examination by one psychiatrist of his experience in Australia.

Early in 1942, we were organized as a 500-bed [station] hospital destined to go to Australia. We staged and organized in a California camp, essentially to become acquainted with each other and for the various officers to be assigned to their duties. The writer was assigned as neuropsychiatrist * * *.

The commanding officer of this hospital thought it expedient to have all the personnel examined prior to their departure overseas. Three men were assigned to examine the officers, including the nurses. The writer was requested to do the neuropsychiatric examinations. It was a novel experience to have a commanding officer cognizant sufficiently of the importance of the mental factors to request a special examination in that field. The enlisted men were examined by all the medical officers and no special neuropsychiatric examinations were made * * *. It would have been manifestly impossible to give any sort of special neuropsychiatric examination to the almost 200 enlisted men of the command, in the time allotted. These men had all received prior examinations which qualified them for foreign service.

At the time of the examination of the officers, the writer had been in contact with the male officers for about a week and had a vague idea of their general personality makeup. After the examination was accomplished, out of approximately 35 officers, two were transferred to a general hospital for purely psychiatric reasons; one with a diagnosis of chronic alcoholism in a psychopathic personality, and the other, a severe anxiety neurosis with schizoid trends. The latter patient developed a state of acute anxiety verging on panic when confronted with the probability of overseas duty. He complained of marked weakness, depression, bad spells of weeping, and showed some confusion.

Another officer was transferred to the hospital for otosclerosis. He presented no especial psychiatric problem except for the shyness and sensitivity of the partially deaf. One other officer was transferred for a surgical condition but psychiatrically had an infantile type of personality which partially determined his transfer.

Six of the male officers were considered borderline psychiatric problems, but did not present symptoms of sufficient severity to permit a hospital transfer. They came

overseas. Three of these have since been returned to the United States. One of them was an alcoholic with moderate psychopathic trends. He developed a catarrhal jaundice with persistent liver damage, in which we feel that alcohol played a part. Another was a moderately severe neurotic with rigid personality traits and moderate paranoid trends; the latter probably on the basis of a repressed homosexuality. He took to excessive drinking after suffering various insults to his self-esteem. Another was returned because he developed bronchial asthma overseas. He had a history of allergy at the time of organization. The bronchial asthma developed after continued moderately severe environmental stress of an emotional nature.

The other three borderline psychiatric cases continued their duties overseas but two of them are a known source of difficulty in their interpersonal relationships in the unit. One of them is a hysterical type of neurotic with paranoid and infantile traits; another is a rigid obsessive-compulsive neurotic. The third individual did not remain with the unit long enough for diagnosis, and his present whereabouts and state of adjustment is unknown.

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None of the nurses examined, who numbered between fifty and sixty, were rejected as unsuited for overseas duty. There were a number of questionable cases. These nurses volunteered for overseas duty. Many of them had neurotic conflicts characterized by much self-aggression.

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Only one man was referred for consultation by the commanding officer of the detachment of enlisted men. He was a newlywed, shy, moderately anxious young man who felt that he was too nervous to go overseas. He was really only very much in love with his bride. After a discussion of the problems involved, he adjusted to the situation and made an average soldier. His ethical attitude toward the war was good. The ethical attitude (morale) of the soldier toward his position in the war effort was of great importance. Poor morale caused the individual to become easily depressed, anxious, exaggerate his symptoms, and shirk his work. Those with a better ethical attitude proved more resistant to the frustrations of overseas service.

In general, the morale and psychological attitude at the time of the organization was excellent. There was the prospect of an interesting change in the customary environment, new social and sexual situations, the breaking away from old and usually boring routines, the imminence of adventure. There existed a general air of expectancy and good fellowship. There were a few rigid, timid neurotic souls who were despondent and anxious at the prospect of danger and the necessity of adjusting to a new and untried situation and leaving the accustomed grooves of their lives. They were in the decided minority.

We arrived in a southern Australian city of about one million souls. At that time, the American troops were still few in number, a decided novelty, and were welcomed by the populace, literally, with open arms. The Australian is by culture friendly, talkative, and an excellent host. Australia had been in the war for more than 2 years, but until the entry of Japan into the conflict had suffered little hardship economically and otherwise, except for the absence of her men overseas. Food and liquor was plentiful, ordinary commodities obtainable, and rationing was still to come. About 10 percent of the population was in uniform, including a larger percentage of women in the auxiliary service than we have here today.

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After several months, our unit moved north to a new location, Brisbane, a more rural and less cultured and exciting community of about 300,000. We were located about 35 miles from this city; transportation was difficult and the pressure of work usually so great as to considerably limit the time allotted for recreation. We lived in tents at first and when the rains came suffered considerable discomfort. There were no provisions for recreation within the camp area until later. As time went on, considerable improvements

were made in these respects and the ordinary conveniences of modern life appeared. To offset this, with the increase in activity in that theater of war, our patient load increased, and we worked harder, longer hours, and under increased tension. Promotions were few. The tension created dissension and dissatisfaction and behavior regressed to more infantile emotional levels, grousing increased, and our morale weakened.

Our hospital was never in the actual zone of combat but we had much experience with patients returned from these zones. There was no apparent increase in the incidence of psychosis. The psychoses that developed were apt to be in the nature of acute episodes in schizoid and paranoid personality types with an excellent prognosis for social recovery in a matter of months to a prepsychotic integration level. About 20 percent of the cases were manic-depressives, usually depressions. These were more obviously precipitated by environmental factors.

All patients with a history of a definite psychotic episode were returned to the States even if, at the time of examination, no evidence of psychosis was found. There was sufficient evidence in the personality structure to warrant such a measure. The conflicts in the schizoid reaction groups were predominantly internal and sexual on the basis of abnormal sexuality. At most, the war situation only acted as a precipitating factor. Even in the phantasy content of the psychoses, the war situation played a small part. We can remember only one case out of about 40 where even the superficial content was directly related to the war. This was a young paranoid praecox who developed delusions of reference and persecution after several weeks of combat experience. He thought that everyone was calling him a coward or a spy, and that he was to be shot for showing cowardice under fire. Very few psychotics actually got as far as the combat zone. Most of them broke down or were detected in the training areas.

The incidence of psychiatric casualties was very great and the percentage increased with the severity and length of time of the environmental frustrations. By frustrations, we mean the sum total of reaction to the disagreeable aspects of the war situation; loss of security, sexual frustration, homesickness, monotony, lack of opportunity, fear. The awakening of aggressive instincts by the war training aggravated this state of affairs.

We estimate that at least 80 percent of the casualties (not due to disabling wounds) invalided home were due to psychiatric causes. Under that, we include the psychoses, the psychoneuroses (about 90 percent anxiety states) and the psychosomatic illnesses, chiefly of the gastrointestinal and circulatory systems. Many of these were not given a diagnosis of psychoneurosis though they must be considered psychiatric casualties.

Between 150 and 200 patients were seen in the gastrointestinal ward and only in three of them was evidence of organic disease found and even in those three neurotic factors were obviously important. Of course, the youth of these patients must be considered. We do not include in this category the mild organic diseases which would not be disabling except for the strong psychic factors involved; or the actual aggravation of organic disease caused by psychic factors and the ensuing exhaustion and lowering of resistance to disease. We found cases of chronic and acute sinusitis, bronchitis, bronchopneumonia, chronic cholecystitis, and posttraumatic head syndrome (concussion syndromes) in this group. The inclusion of these cases would increase our total percentage considerably. Nor do we include the frankly organic diseases such as pulmonary tuberculosis, cholelithiasis, nephrolithiasis, and chronic prostatitis with secondary psychic involvement.

There were very few cases of psychiatric disease caused by syphilis, alcohol, senility, or degenerative brain disease. Again we must remember the age factor. There was one case of CNS [central nervous system] syphilis and two of postencephalitis Parkinsonism without obvious mental involvement. Among several hundred cases admitted to the neuropsychiatric service, there were three or four cases of chronic alcoholism with and without deterioration severe enough to warrant transfer to a general hospital where their disposition was unknown. These were all in men past the age of 35.

There were three to four cases of deterioration with organic syndromes in pugilists who were "punchdrunk," men under the age of 30. Posttraumatic head syndromes were fairly common, and any man with a history of unconsciousness of more than 5 minutes' duration who has complained of headaches, memory difficulties, ease of tire and irritability of even slight degree should be considered a very poor risk for overseas service: These patients were especially apt to complain of symptoms when exposed to the hot sun. Many of them thought that they could get along in a cold climate.

We would like to say a few words about a condition that was fairly common in the islands of the Southwest Pacific Area where the soldier, especially early in the war, suffered, in some areas, from malnutrition, vitamin deficiency, exhaustion, and various tropical diseases. Their psychic reserve was reduced and they easily developed the symptoms of an acute anxiety state. If these soldiers had a good original psychic endowment and background, all they required, before being returned to duty, was a few days or weeks of rest, good food, vitamins, plenty of sleep, some sedation especially hypnotics at night, and treatment of any tropical disease they might have acquired.

The length of treatment necessarily depended, in the main, on the organic factors. If the original endowment and background were poor, the prognosis was likewise in almost a direct ratio. If the patient with a poor psychiatric history recovered sufficiently to be returned to duty, the prognosis was poor and he had a better than 50 percent chance of soon returning to the hospital.

It appears that once the neurotic develops a pattern of behavior as a reaction to certain unpleasant environmental conditions, the ease of recurrence of this pattern under the same environmental conditions is very great. These patients should be treated as close to the actual combat areas as possible, and returned to duty as soon as possible. The longer they remain in the hospital and the closer to home or farther from the combat area, the more fixed are they apt to become in their neurotic patterns and to exaggerate their symptoms. The desire to get home and flee from the unpleasantness of war is usually there, conscious or unconscious, and the ideas engendered by the emphasis on symptoms by medical personnel and by the transfer to base or general hospitals gives the patient renewed hope and makes him consciously or unconsciously more determined to flee the unpleasant situation, especially if it entails no injury to his superego.

No diagnosis of malingering was made nor in our honest opinion was there an instance where it could have definitely been made. The one case where it was considered turned out to be a brachial plexus neuritis in a mild psychopath who coincidentally was awaiting court-martial for some minor infringement of Army regulations. The average person who is extremely desirous of fleeing from some unpleasant situation can usually develop enough honest-to-goodness symptoms of anxiety to make a diagnosis. Or else some part of his body, a locus minoris resistentiae, responds to his wish for illness or he consciously or unconsciously exaggerates the symptoms of an illness. Goldbricking is not malingering. It is conscious exaggeration of actual symptoms. Even that was not common except to achieve a few days of hospital rest or to temporarily evade some unpleasant duty. The common thing was unconscious exaggeration of actual symptoms. In this respect, we must remember that there is no line of separation between the conscious and the unconscious.

Over 90 percent of the psychoneuroses were classified as anxiety states. Included in these were the cases of psychosomatic disease where symptoms were part of the anxiety state. The common symptoms were those of gastric neuroses, spastic colitis, spasms of the esophagus, cardia, pylorus, secretory changes in the gastrointestinal tract, ureteral spasm, neurocirculatory asthenia (effort syndrome, disordered action of the heart), and certain cases of urinary frequency, burning on urination, nocturia, and enuresis.

Hysteria was not uncommon and manifested itself in various ways. There seemed to be two types of hysterical personalities. One type had a severe, rigid superego, re-

pressed his fears and longings for escape, and overtly behaved in an aggressive heroic fashion. These individuals would develop amnesias for their acute attacks and refuse to admit the psychogenesis of their symptoms or the emotions that prompted them. They usually insisted on being returned to duty but often began to complain of other symptoms when this was about to occur. The prognosis was poor because most of these returned to duty lasted only a short time and were then returned to the hospital. This type of patient is apt to dissociate readily under fire, get shot for desertion while in a fugue state, or endanger the lives of his comrades by acting automatically or subconsciously in a crucial moment. Most of them had histories of hysterical dissociation of some type prior to induction. On casual observation, they appeared to be fairly normal individuals. They were inclined to be rigid, sensitive, superioristic, and of superior intelligence.

The other type of hysteric was more the classical type we usually associate with women. He was infantile, apt to be of inferior intelligence, dependent, obviously wanted to be cared for or looked after, was apt to develop, in addition to amnesia, various type of somatic and organic conversion symptoms of an obviously hysterical type, and did not conceal his desire to be discharged from the Army.

Many of the patients sent in with a diagnosis of epilepsy were either hysterical cataleptics or else were suffering from a hyperventilation attack. The latter was either hysterical or a symptom of an acute anxiety attack depending on the personality makeup of the individual and whether the symptom satisfied a definite unconscious emotional conflict forming part of a psychodynamic pattern, and also on the existence of amnesia. The diagnosis of neurasthenia was never made. The symptoms usually diagnosed as neurasthenia were felt to be either due to organic disease, exhaustion, or were part of the anxiety state.

In conclusion, a neurosis is a reaction of the total individual to the total situation at any given time and, therefore, varies with the factors of heredity, infant and childhood conditioning, adult adjustment, and severity of environmental stresses. The important factor in war neuroses is the increase in severity of environmental stresses with definite threats to the self-love and self-preservation components of the ego. The physical status is lowered by exhaustion, malnutrition, disease, and vitamin deficiency so that the threshold to the onset of mental symptoms is lowered. The dynamics of the war neuroses is no different from those of civilian life; only the emphasis varies.

OVERALL EXPERIENCES OF PSYCHIATRISTS

Comprehensive Reports

As the war progressed in the Pacific, many of the psychiatrists moved with their hospitals from the communications zone forward into areas that still were not involved in active combat, but which were much closer to the fighting. In quoting from psychiatrists who have made their experiences available to us, it has not been possible or desirable to separate the accounts of medical care in Hawaii, Australia, and New Zealand from accounts dealing with successively more forward areas, as will be observed from the contributions. Some of the problems changed as the men were moved into more primitive locations where supportive outside activities were successively less available. Finally, many of the station and evacuation hospitals either moved forward into combat areas or were, from their first commit-

ment in the theater, assigned to combat locations. Many psychiatrists' personal experiences encompassed zone of communications, rear area, tropical, and, finally, combat zone assignments. Again, in the accounts to follow, it has not seemed feasible or proper to separate any psychiatrist's experience into these three different areas.

Later in the war when the psychiatric organization was better established, initial treatment of combat psychiatric casualties was carried out at the division level. The next echelon of treatment was usually the station or evacuation hospital, which, on many of the islands, in the Pacific was located very close to the front. For example, on Bougainville, the 21st Evacuation Hospital perimeter was within 800 yards of the combat lines, situated between the front and the artillery. Such locations meant that many station and evacuation hospitals had actual combat experiences of their own.

We do not intend to make extended comments on the rationale or theory of treatment. We do believe that some examples with comment by men who served in the theater will be illustrative of the problems met and will have, also, an intimate and personal flavor which could not be obtained by any abstracting.

Francis S. Adams, M.D.—The account, which follows, by Dr. Francis S. Adams, who served as a captain, MC, in the 92d Evacuation Hospital, is valuable for several reasons. It is a demonstration of the necessity to assign officers to neuropsychiatric responsibility, despite minimum past experience or training. Also, it is a personal account of combat stress by a medical officer who was observing his own reactions. Finally, it illustrates the circumstances under which the psychiatric job had to be done, from the standpoint of both enemy action and physical hardship. Like other accounts, it points out that often neuropsychiatric facilities were overwhelmed by the influx of casualties, which presented a task that could not be met with the personnel available.

"SOUTH SEAS PSYCHIATRY"

Chapter I—*Summary of Unit and Personal History*

The 92d Evacuation Hospital (SM) [semimobile] was formed as a composite of two surgical hospitals. The officer personnel of the affiliated reserve unit, 64th Surgical Hospital, were joined with the 4th Surgical Hospital at Fort Ord, Calif., in July 1942. The officer complement was filled out with other surgeons, and the unit was not designated as an evacuation hospital until considerably later. With very few exceptions, most of the medical officers had definite surgical specialties, or at least substantial surgical pretensions. The redesignation of the unit required the assignment of many of the officers to nonsurgical duties. However, throughout the history of the unit, the specialized officers were used freely as consultants in their specialties. In the more uncommon specialties, the officer concerned would often assume the care of whatever case might fall into his real specialty in addition to carrying out his unit assignment. Most of the officers were sufficiently anxious to remain with the unit, that they found this acceptable.

The 92d Evacuation Hospital (SM) was fortunate in beginning its active life with a Board-certified neuropsychiatrist of extensive experience, Maj. Irving I. Schatz, MC.

He served during the entire desert training period and for an extended time overseas at Rockhampton, Australia. However, the damp weather of the Australian winter and spring activated an arthritic condition for which he had to be transferred near the end of 1943. I was appointed to succeed Major Schatz and performed the neuropsychiatry for the 92d Evacuation Hospital until V–J Day.

My appointment as neuropsychiatrist to the 92d Evacuation Hospital (SM) is a reasonable development from the course of my career. I had always been interested in neuropsychiatry, and upon the completion of my internship, I determined to specialize in this field. I served several months as a resident physician at a large State hospital, working and studying to this end. However, I became very much discouraged with the general hopelessness of the cases seen, and left psychiatry to enter general practice. After several years of general practice, an opportunity for postgraduate training and preceptorship offered itself, and I became qualified in the specialty of proctology, subsequently becoming Board-certified.

In the general reassignment of medical officers required by the change from surgical hospital to evacuation hospital, it was easily seen that the rather small population of healthy young people served by our unit would develop little work in my specialty. Although consulting in proctology and conducting a few cases right along, I progressed through a variety of principal assignments until Major Schatz was transferred. At that time, I was the only member of the unit who had any psychiatric experience whatever. I was consequently appointed neuropsychiatrist. I was pleased at the opportunity to perform more significant work.

A history of the 92d Evacuation Hospital itself from the neuropsychiatric standpoint might be of some interest. The 64th Surgical Hospital consisted of a hometown unit of physicians and nurses and contributed about half of the officer personnel of the unit. The 4th Surgical Hospital was lacking in numbers of officers but did contain a cadre of experienced enlisted medical personnel. The early enlisted increments already had basic training. Further training was continued during a brief period at Fort Ord and subsequently for more than 10 months on the Mojave Desert [Calif.] during desert training. During this period, increments of enlisted men without basic training were received, and basic training was conducted by the unit. It is interesting to note that one group of new recruits, numbering about 50, was received from one State, and almost all of them were illiterate.

During training of the enlisted personnel and professional conferences with the officers, a considerable background of psychiatric understanding was built up. The normal physiological effects of fear and anxiety were particularly emphasized, and the mechanisms and manifestations of conversion hysteria were made familiar to all. It is firmly believed that these precautions practically eliminated psychoneurotic losses of unit personnel both through psychiatric and functional medical channels.

This unit was subjected to considerable combat stress. For a period of 16 months it continued at all times within range of some conceivable enemy action. Half of the unit spent its first night ashore at Hollandia [New Guinea] within range of fragments from the great ammunition dump explosion. Some members of the unit subsequently participated in fighting the fire which occurred at the same ammunition dump several weeks later.

At Biak, the unit participated in an action which threatened to be a losing one for a time. Daytime air attacks occurred and numerous nocturnal raids by single enemy planes were common. There was one string of 60 successive nocturnal attacks. During the critical phase of the Biak campaign [May–June 1944], when the enemy naval counterattack force was merely 4 hours away, the hospital was evacuated from the beach to a location between ridges farther inland, after burying all the more fragile equipment against possible destruction.

In convoy on the way to Luzon [Philippines], the ship occupied by the unit was attacked by a kamikaze plane which was fortunately shot down. After the landing at Lingayen Gulf, the unit experienced a night infiltration attack by the enemy while in bivouac near San Fabian, suffering combat casualties of four killed and 13 wounded. The unit moved into Guimba in the face of the enemy armored division at San Jose and was *between the lines* when friendly patrols withdrew for the night.

During this entire period in the combat zone, the evacuations for neurosis from the unit itself were practically nil. A few acute situational anxiety reactions occurred, but they were treated on an outpatient basis successfully. A number of psychoses occurred which will be detailed in other paragraphs, but these were not out of proportion in incidence * * *.

Chapter II—*Australia*

While in the United States, the psychiatric work of the 92d Evacuation Hospital (SM) was very little different from garrison-type routine, even during desert training. In Rockhampton, Australia, from July 1943, through March 1944, the unit was concerned with the care of recuperating combat units. The 41st Infantry Division and its attached units, as well as I Corps, were resting and retraining in the Rockhampton area. Later, the 24th Infantry Division took up training activities in this area also. The small units were given training by turns in amphibious attacks at Toorboul Point.

The psychiatric care of the returned combat troops represented a sharp departure from the usual routine and was very interesting. The most striking feature was the emotional impact of the malaria situation. The Medical Department, in general, and particularly medical officers from the southern part of the United States, handled the malaria problem at first with considerable overconfidence. The troops were led to believe that residual malaria infestation could be completely eliminated from the system by a course of medication of one type or another. When the soldiers began to experience repeated relapses, many of them began to feel very sorry for themselves and this offered a field day for the neurotic and emotional types. All sorts of physical disabilities were attributed to the recurrent malaria. Eventually, the firm establishment of an effective suppressive of malaria helped overcome the basic causes of this condition.

The operation of the Sixth U.S. Army Training Center (familiarly known as the "Fox Farm") very rapidly changed the attitude of the troops. It became widely known that any soldier evading the suppressive doses of medication or complaining unduly about physical debility related to malaria would be required to undergo a course of rehabilitation at the Sixth U.S. Army Training Center. Here, medication was administered with the closest supervision, and outside privileges and activities were very sharply curtailed * * *.

The heaviest caseload in the care of the 41st Division troops arose from combat anxiety, still remaining after a period of rest. Psychosomatic complaints were quite common and offered a real problem of diagnosis in persons who could have malaria, amebiasis, ankylostomiasis, or hepatitis without jaundice. I am sure that the vast majority of the cardiac and gastrointestinal cases were handled through the medical department [section] with very little emphasis on the functional origin of the troubles. The admitting officer in charge during that period of time frankly stated that he sent every case to the medical service "if they *might* really have something the matter with them." As the neuropsychiatric department [section] could not handle more cases than it had without drastic enlargement, this attitude was allowed to go unprotested. Most of the neurotic reactions could be very simply handled. When the motivation was good, and a little insight could be established, many were returned to their units as fully effective individuals. In a few, continued severe tremor, startle reaction, and nightmares with talking or walking in the sleep required reassignment to noncombat units.

An interesting type of compulsion was noted in a few cases. Some of the men who

had been subject to repeated severe air raids could not rest if they heard the sound of an approaching motor. They were compelled to get out of bed and go out of doors to see for themselves what sort of vehicle was coming. Any attempt to require them to remain in bed resulted in increasing manifestations of fear with sweating, tremor, and weeping. One patient attempted to hide under his cot when a truck passed by.

Nostalgia and depressions were unusually prominent. A few serious suicidal attempts were made and a number of superficial ones.

A number of epileptics and borderline psychotics whose illness was discovered during the close living conditions on the frontlines were processed. The usual run of behavior disorders required evaluation and a few cases were brought under observation at the request of military courts. Rare psychotic individuals would require transportation from Rockhampton to Brisbane by air by reason of administrative features in their cases. When they were reasonably tractable, it was customary to carry them as ordinary military passengers accompanied by a medical officer. Major Schatz had a very bad experience with one of these, however. This man was very mild and inoffensive on the ground, but became maniacal at the altitude of 500 feet and succeeded in kicking open one of the doors to the bomb bay. Major Schatz and members of the aircrew were finally able to subdue him after a very breathtaking, cliff-hanging struggle. Many months later, it became a requirement for the air evacuation of any psychotic that he be completely shackled.

A toxic psychosis or delirium was seen to be precipitated in some men by a certain high-dosage regimen for malaria. The regimen required in giving 1.2 grams of Atabrine in the first 24 hours, then 0.8 gram and so on finally declining to the normal suppressive dosage after about a week. About once a week, while this regimen was in force, I would be called to see a patient who had become psychotic during the early phase of this dosage. This reaction can scarcely be attributed to the disease, because it was not seen in cases managed on more moderate dosage. I do not recall seeing a single case in persons receiving 0.3 gram per day or 0.1 gram intramuscularly daily, or in those cases treated with quinine. The reaction is manifested first by extremely sudden onset, occurring within minutes. The patient would rise from his bed or chair and suddenly proclaim himself to be Jesus or some prophet and prophesy the early end of the war and start talking rapidly, claiming clairvoyance, mindreading, thought transference, as well as influence over other people and inanimate objects by thought or command. After a few minutes of this, hallucinations would supervene and the patient would be completely preoccupied with visions, and conversations with unseen hearers. Great motor restlessness and finally violence would often ensue. Restraint and heavy sedation would usually produce sleep. Recovery could take place within a few days.

Chapter III—*Hollandia*

The clinical neuropsychiatric work with the 92d Evacuation Hospital (SM) continued with its first combat assignment, the landing at Hollandia in Netherlands New Guinea. After a brief staging period at Finschhafen, the unit was divided among a number of LST's [landing ship, tank] and arrived at Hollandia after sailing a course around the Admiralty Islands.

The unit landed on D+1 (23 April 1944) on White Beach 1. Unfortunately, the beachhead had scarcely any depth, there being only a strip of firm ground about the width of a single-track road running the length of the beach. Directly behind this was a mangrove swamp. All the units had to make an immediate right turn on leaving the landing craft. Although the ramp to my LST was down early in the morning, vehicles were not gotten off until much later. I landed on foot and by walking and hitchhiking reached the unit bivouac area on Pancake Hill late in the afternoon. Fortunately, the foxholes left by the 162d Infantry Regiment the previous night were available for our use.

At dusk, an enemy plane started a fire and a series of devastating explosions in the ammunition dump left by the enemy near the foot of Pancake Hill. The following day, the unit moved into a defile between Pancake Hill and Jarremoh Hill and the Hospital was set up. In the briefing prior to the embarkation, the unit had been advised to "have your psychiatrist dig a deep foxhole and stay there; there aren't going to be any psychiatric casualties in this operation." Nevertheless, the psychiatric casualties soon began to arrive, most of them being persons who had remained on the beach during the ammunition dump explosion. Most of these had acute reactions which were rapidly relieved, such as severe tremor and marked startle reaction. Any sort of a report or explosion would cause them to jump and in some cases dive for the ground or other shelter.

I can testify as to the severity of the explosions, and the effects were not due to noise alone. It seemed as if every particle of soft tissue in the body received a severe jerk during the more severe explosions, as both air and earth seemed to move bodily. I experienced nothing like it for the remainder of the war. I suffered considerable startle reaction myself the following day and experienced some difficulty in swallowing my food.

The battle had resulted in the liberation of about 800 Allied personnel who had been prisoners of the enemy. These consisted of troops from India of every conceivable race as well as some British, American, and German missionaries. A large number of these required hospitalization in our unit, and the psychiatric tent was one of the few places that had sufficient room to accommodate them. As an experiment, cots were not being used but litters were placed on wood pole framework in a doubledeck fashion. The litters were paired from side to side so that there was only access from one side. This increased the capacity of the ward tent to somewhere between 40 and 60 persons.

The reader is invited to imagine the situation with the tent crowded to the utmost limit with Hindus, Moslems, Sikhs, all dressed in remnants of uniforms pieced out with patchwork of colored cloth and many wearing colored turbans. Add to this a number of German missionaries who could not speak English. All of these were ill with malaria, dysentery, and malnutrition. With the dysentery and all, it soon became evident that the double-deck bunk experiment was impractical! In the midst of all this were a number of tense and battle-weary soldiers and three who were quite active and maniacal. For several days, we had Babel added to Bedlam. It was gratifying to be visited about this time by the author of "No psychiatric casualties" briefing!

I can't say that anything new was learned from this experience although it was indeed a colorful one. It was a mad scramble to keep up with only the very urgent needs of the patients, and very little definitive work could be undertaken. The importance of prompt decisions and disposition was brought home to me however in a way that was to be useful later. After about 2 weeks of operation in this location, the unit was relieved in place by another evacuation hospital. Our unit turned over its complete setup and received in exchange the packed equipment of the other hospital and proceeded to undergo staging for the next attack. During this phase, the unit went into bivouac on a beach area just south of Cape Jogoer. As space was at a premium and it was impossible to move vehicles into this area, it was necessary to hike about a mile to the vicinity of our old hospital location for each meal.

Finally the unit was divided among the LST's of Hurricane Task Force to provide maximum medical service for each ship, and embarked for Biak.

George W. Hardt, M.D.—The title of this chapter is "As We Remember It," and some of our respondents have "remembered it" with extreme vividness. We are quoting here, with his permission, as an excellent example, the experience of Dr. George W. Hardt who, as captain, MC, served at the 141st Station Hospital.

I was transferred in November along with Sam [Samuel W.] Joel, Henry [A.] Davidson, Herb Robbins, and Harry [A.] Teitlebaum to the newly organizing 141st Station Hospital. I came from the 174th Station Hospital where I had been treating mostly benign tertian malaria and other medical cases.

My impression of the purpose of the 141st was that due to the large number of psychiatric casualties in the area of the Pacific a new hospital was being formed to salvage what could be salvaged and get the men *back on duty*. This idea proved to me to be a rather large order and an almost impossible idea to put into effect. Someone cooked up a beautiful diagnosis of simple adult maladjustment which took care of a good percentage of cases—the infantryman with leg trouble, the supply soldier with the backache, and the sensitive soul with the stomachache.

Being highly patriotic, it was difficult for me to stomach some of the cases which were at not too deep a level. However, I was sympathetic with the intelligent neurotic who seemed to be really trying and ofttimes unappreciated for his courage. I remember one sergeant who told me he dreamed every night of the plane coming down to his anti-aircraft gun—down the barrel—and he would tear through his net every night. He wondered if he were really a coward as he felt after such a shattering experience. He was willing to go back to duty but not with his own outfit.

Another young fellow with "leg trouble" I sent back to duty only to see him in Letterman General Hospital [San Francisco, Calif.] when I got back—with a scarred up face from a grenade, with a sickening feeling I wished I had not sent him back to duty.

I used to write volumes on patients and wonder if any one ever read them. I was always behind in my workups—like an overly conscientious intern until H. Teitlebaum told me how to shorten a history.

The younger psychiatrists used to amuse themselves with hypnotism in the tents. My tent was a picture of degeneration. Moldy blankets, moldy shoes, my hair falling out, my teeth loose in their sockets (lack of vitamin C). I was fast becoming a "zombie." Lost something like 40 lbs. I hated to take cold showers and in addition the concrete floor of the shower stall was slimy and slippery. When I came back an energetic skin man cultured four different varieties of fungus from my body and in addition I was continually cleaning yellowish pus out of my left ear from a chronic otitis media. Finally, I checked in the dispensary of the recently arrived general hospital where the ENT man impressed by my length of stay in the unhealthy climate started proceedings to send me home.

The 141st became the 18th Station Hospital somewhere along the line, and there were new arrivals. I remember my attempt, at group therapy, where I believe a few neurotics obtained some insight * * *.

Once I had a psychopath—the type of man who could "hit an old lady." I let him know in no uncertain terms that his plans for going home were going to be thwarted. He let me know in no uncertain terms that he was going to kill me. I was quite fearful of him. So I slipped my 45 under the pillow a couple of nights—I don't believe it even had any bullets. Apparently the cleaning man found it and told Major Joel who called me to his tent. I told him the story and he asked if I would return the gun to the fellow from whom I borrowed it * * *. I sheepishly took the gun back, *wondering if the major thought I was schizophrenic*. Later, he transferred the patient to another hospital and I felt relieved.

* * * * * * *

Perhaps I should mention that there was one patient that really could benefit by this type of hospital—the real "free floating" anxiety case. One fellow I remember came back from an airfield where he was in the ground crew—apparently he was lying on the field being bombed and strafed. When I first got him all he could say was "Guns." There were what looked like permanent "goose bumps" on his skin. His hands twitched in a kind of pill-rolling tremor and he had a glassy stare. The Major took him in and

gave him Pentothal [thiopental sodium] or Sodium Amytal [amobarbital sodium] * * * and had him relive his experience. After much shrieking, shouting, and running about the fellow was able to talk * * *.

Samuel W. Joel, M.D.—As an illustration of the thinking of a psychiatrist, 15 years after his wartime experience (in the Southwest Pacific Area, from 1942 to 1945), it is of interest to quote Dr. Samuel W. Joel [5] (formerly lieutenant colonel, MC) about psychiatric casualties.

From June 1942 to October 1942, I was assigned as Chief of the Neuropsychiatric Section of the 18th Station Hospital, a 250-bed unit. During this time, the hospital was located in a private girls' school in Charters Towers, Queensland, Australia. This was to be the only time in my overseas experience in the Southwest Pacific Area that any hospital with which I served was located in an even moderately inhabited place. The town had a small population, was relatively poor, and was reminiscent of one of our mining towns of the West which had seen better days. Its location was relatively far north in Australia and ideal for the airstrips of units of the 90th Bomb [ardment] Group. The offensive against the Japanese had begun.

My work in neuropsychiatry was routine but because of the small patient load was light in amount. In the hospital, my duties were essentially those of psychiatric consultant. I gave lectures to the nurses and the corpsmen who had had little experience in psychiatric work. I also served as consultant to the local Australian Army General Hospital and as consultant on occasion to the Civilian Hospital in Charters Towers. I did liaison work with the American Red Cross and town officials toward improving conditions for the morale of the troops.

From October 1942 to June 1943, my assignment as Chief of the Neuropsychiatric Section of the 18th Station Hospital continued. Strategically, it had become necessary to establish more forward airstrips for the 90th Bomb Group to continue its strikes, particularly around the area of Rabaul, New Britain. As soon as the pioneer work was done by the engineers in establishing airfields, our unit was moved into the Portland Roads Area, an area of uninhabited jungle about 100 miles south of the tip of the Cape York Peninsula. This was also called the "Iron Range" section and although we thought that this was a provincial name for the place we were quite surprised to hear Tokyo Rose in her broadcasts refer to the troops there as the "butchers of Iron Range!"

To my duties as psychiatric consultant were added those of executive officer and with them training for assumption of command which was to take place the next year. These added duties were a blessing because we had to build our own hospital and with the small patient load there was little informal psychiatry to be done.

Morale of the troops at this time was not good. The climate was typically tropical (rain usually measured in an inch per hour for hours at a time), the terrain bad for hospital construction even of the simplest sort, and the food supplies extremely poor. Very early after our arrival at Iron Range, we had a severe epidemic of dysentery. Within 12 hours' time, we had some 400 troops ill in bed with fever, abdominal pain, and bloody stools. And, furthermore, we had very little in the way of medical supplies with which to work. Investigation revealed that we were literally living in a region surrounded by open garbage dumps. The first troops there had practiced the worst sort of sanitation and we were suffering for it. For weeks, we worked night and day discovering and burning tons of garbage that had been dumped on open ground. The fly control problem was unbelievable.

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[5] Dr. Joel's name appears in many letters we have received from officers who served with and under him and always as a man highly regarded as an understanding, humane, and well-trained psychiatrist with a high concept of his mission.

I had the distinction as a psychiatrist of diagnosing a measles epidemic in a native aboriginal group some 20 miles south of Iron Range to which we had been ordered by the high command by cable as follows: "Investigate alleged epidemic Lockhard River mission foot of hill on 112th parallel." The disease had apparently struck most of the natives from infancy to old age. The mortality rate was about 10 percent. The anxiety shown by these unfortunate natives in the face of overwhelming disaster was extreme. We were not able to stay and observe as much as we would have liked to.

Although there was little real psychiatry practiced at Iron Range, the experiences gained were most valuable. I had become indoctrinated to the function of command. I had developed many ideas on how to set up a field hospital. I had profited tremendously in learning the value of good sanitation and what it could mean to the morale of troops. We were never again to be threatened by dysentery if we could avoid it, and if it came we were prepared to handle the situation immediately. All of our canned foods were cooked after this—one experience with botulism is enough. Our sanitation was of the best. I had the dubious distinction as a psychiatrist of designing and building a practical and effective grease trap that was ultimately adopted by the Engineers Corps!

From June 1943 to November 1943, my assignment as Chief of the Neuropsychiatric Section of the 18th Station Hospital continued. As the overall advance continued, we were advanced to Milne Bay, New Guinea. My duty as executive officer continued, and I was happy because we had no hospital until we built it ourselves and hence no patients. I was occasionally called upon in consultation but the time had not yet arrived of handling many neuropsychiatric problems locally. At a time when, psychiatrically speaking, my own morale was becoming low, Col. S. Alan Challman, MC, who had been my chief at Lovell General Hospital, Fort Devens, Mass., inaugurated the plan of special neuropsychiatric hospitals to be set up in relatively forward areas to handle cases immediately. My next assignment was in this type of hospital.

From November 1943 to March 1944, I was commanding officer of the special neuropsychiatric 141st Station Hospital (50 beds) stationed in Milne Bay, New Guinea. Because of the success of Colonel Challman's ideas, I was next given command of a larger unit.

From March 1944 to October 1944, I was commanding officer of the special neuropsychiatric 18th Station Hospital (250 beds). This was my original overseas unit which was now converted to neuropsychiatric work only.

In addition, there were some activities that as a psychiatrist and commanding officer I had to perform in utmost secrecy. Even my own staff could not be taken into my confidence. These assignments were passed on directly to me by the commanding officer of the base or the base surgeon. They involved questions of morale in officers in a command position in whom psychiatric disease was a possibility. I always felt that in these cases psychiatry was of considerable help to higher authority in reaching certain decisions. But even after 15 years, because the officers involved might still be living, I think the less said the better.

From October 1944 to February 1945, I continued as commanding officer of the special neuropsychiatric hospital, but the designation had been changed to the 125th Station Hospital. Our new location was about 15 miles from Tacloban, P.I., in a town called Alangalang. Conditions here were hectic to say the least. Before we could begin to function again, we had first to construct our hospital. We did little psychiatry during this time. When, finally, the hospital was functioning my command terminated by my being "rotated" home.

Much has been said and written about psychiatric casualties. The figures on men rejected on induction are high, and the casualty rate during war is enormous. Sometimes I have wondered whether we in the U.S. Army, both before and after induction, didn't make it too easy for such "cases." I shall never forget a discussion I had with the commanding officer of the Australian General Hospital in Charters Towers, Australia, where

I served as visiting consultant. All of the patients I saw there were psychotics and obviously unfit for duty. I was impressed with the singular fact that I never saw a psychoneurotic in consultation. I asked him why this was so. He smiled and said, "Oh, I suppose we have them, but we find some work for them—we need them, you know. We don't make too much of it." Perhaps this is partially the answer—a reasonable deemphasis. At any rate, it might have bearing on our future, if as we believe wars will, if they come, involve large civilian groups as well as military groups.

James O. Cromwell, M.D.—Among the many documents that have been uncovered during the search for reminiscences is a letter written by Dr. James O. Cromwell, then a major, MC, to Colonel Challman, then SWPA (Southwest Pacific Area) consultant in neuropsychiatry. This letter, which follows, is the summary of a creative and excellent treatment program, written while in the process.

At the time you were here the base surgeon, as I told you, had intimated to me that he was going to place me on duty here to do psychiatric work. I doubt if the problem we were to face was clearly defined in his mind, but he knew that it had been quite a difficult problem from his point of view, and was determined to do something about it.

Shortly after that he did remove me from my command of a portable hospital, and placed me on duty at the 171st Station Hospital, and asked a study of the practical problem be made, and from time to time that he be advised, and concrete suggestions made as to what should be done. I am very happy to report that the base surgeon, Colonel [Julius M.] Blank, has been one of the finest men to work with I have ever served under from the point of view of taking things by the "tail" and getting into action. He is a man of action, and a man with vision. He is straightforward, gives concise orders and backs you up once his mind is made up as to what he wants done. That had made it a pleasure to set up a small service as an independent section of the 171st—called "The Medical Section for Functional Diseases."

It was very fortunate indeed, for us that you visited just when you did. I had been thinking, as I told you, in terms of a completely separate hospital for functional diseases. You brought it out in our discussion that we must closely integrate psychiatric work with the medical and surgical services of the hospital, where our cases were for the most part to come from. I hated to give up my idea of a separate hospital, but the more I thought about it the clearer the wisdom of your suggestion appeared.

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I would like to tell you what we have done. As you know, Lt. [later Capt. Robert W.] Webb was stationed at the 171st. I was ordered assigned to the 171st also. The two of us began to work together. We set up a special ward for psychoneuroses, as part of the Medical Section. As the demand for the service increased additional men were assigned. Colonel [William J.] Bleckwenn ordered one of his men, well trained in psychiatry, to work with us awhile. He had to be withdrawn later, but soon another lieutenant was assigned in his place. This man was a Lieutenant McDanaly; a man enthusiastic over getting into our section, but not a psychiatrist. He had been in my old unit, had demonstrated better than average understanding of functional cases, and a genuine interest in them. He joined knowing there would be no opportunity for promotion, whereas he could certainly have had a promotion soon in the 15th PH [Portable Hospital]. Then we found a Lieutenant [Joseph M.] Zucker. This man is well trained. Spent 6 months in clinical neurology in London Town Hospital, then 2 years under Dr. Globus in New York in neuropathology, and the last 2 years at Worcester State where he was the senior resident under Dr. [William] Malamud. He is a Hopkins graduate, and was following out the program outlined for him by Dr. Adolpf Meyer. Then

lastly Lt. [Francis A.] O'Donnell joined. He is a Denver University man, with over 2 years' experience in clinical psychiatry. He is doing excellent work.

The administrative aspects of the work consume a considerable part of the time. Many of the problems are foreign to the Chief of Medicine. Therefore, I thought it would be most satisfactory to consider our wards as a "Medical Section for Functional Disease," equivalent to or similar to the Medical Section, and the Surgical Section, placing myself directly under the commanding officer of the hospital. In this way I can handle the administrative duties of the Chief of Section with least effort. This has worked out very well.

All cases are admitted to our section only after having first been admitted to the medical section. There they receive a thorough physical workup, and we are asked to see them in consultation. If the case is then found to be functional, and one we can possibly help, it is transferred to our wards.

In the last 3 weeks we have provided consultation service for other hospitals, and admitted a few cases from their medical section direct to our section for F.D.

So far we have had to see psychotic cases—a considerable number of them. They are not, however, administered as part of our MSFD, but are considered as NP cases of the Medical Section. They are on a special ward entirely separate from all other cases.

That summarizes what we are doing. Colonels Bleckwenn and Blank have considered expanding the same plan into a special psychiatric team, consisting of four sections. During active fighting, sections or parts of one section would be split off from the Advanced Base Area Hospital where the Psychiatric Team was attached, and sent forward to the advanced echelon. Colonel Bleckwenn, being a tactically minded man, thinks this plan has merit. But they are too busy to think much about future developments in this field, that will have to come from you. I am sure they will cooperate, however.

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Donald A. R. Morrison, M.D.—In reading through the letters that have reached us, we have been struck by the rather wide variance in the kinds of patients seen in various areas or in different campaigns. We are not sure whether this represents an actual difference in the kind of reaction produced by a given set of circumstances in a particular district or battle, or whether this represents the preoccupations of psychiatrists.

The following letter from Dr. Donald A. R. Morrison, who served in the Southwest Pacific, is of interest for its account of the kinds of patients he saw. The authors cannot forego the opportunity to remark in connection with Dr. Morrison's observations on grandiose religious delusions and experience one of them had on Guadalcanal (Beaton). At this time, a Negro soldier was admitted who insisted that he was St. Peter. Shortly, thereafter, a second Negro soldier was admitted and announced that he was St. Paul. There was some consternation on the psychiatric service with the thought that there might be religious jealousy between these two saintly figures, but fortunately their delusions meshed very nicely and they spent the rest of their time on Guadalcanal prior to evacuation walking up and down the beach in front of the psychiatric ward discussing early Christian mysteries.

Since I have no diaries or documents which would help you in compiling the neuropsychiatric history of the medical services in the war against Japan, I made some effort to obtain statistical or other information from the records of the 13th General Hospital with which I was associated. Unfortunately, the only information available

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related to the progress of the hospital as a whole and I could not obtain data on neuropsychiatric admissions, diagnoses, or any other figure which would indicate statistically the extent or nature of the problems which were met.

The hospital was active in the Southwest Pacific at Finschhafen, New Guinea, from April 1944 to June 1945, and during this time the neuropsychiatric service was extremely busy. The fact that this was a base hospital no doubt determined the type of cases admitted but I was impressed with the almost complete absence of patients with frank psychoneuroses. I can now recall only two cases of hysteria, one an aphonia and the other a paralysis of the right arm. The majority of admissions were psychotic patients. These were often extremely disturbed and might best be classified as acute catatonic excitements. Most patients had disorders of a schizophrenic nature. They ranged from rather simple bemused states accompanied by hallucinatory experiences of being called by mother or some other significant person to the classical hebephrenic reactions. These patients usually cleared up spontaneously after a few days but many of them relapsed when evacuation was delayed and hospitalization continued for three or more weeks. * * * I recall only one or two manic states and an occasional severe depression.

In the course of the year three or four cases were admitted in markedly confused states suggestive of organic psychoses. They were not hallucinated or delusional. All had fever. The history was that they had been in New Guinea only a few weeks and had become increasingly disorganized in the course of a few days when exposed to exhausting physical conditions and much heat. Each had a history of heat exhaustion in the past. Over a period of 7 to 10 days the temperature dropped gradually to normal and paralleling this was a steady lessening of the clouding of the sensorium with finally complete recovery.

On one occasion, following a landing by seasoned troops on one of the islands, the psychiatric admissions to the hospital included perhaps as many as six patients with grandiose religious delusions. One believed he was the Messiah, another said he had been appointed to found a new religion, and so on. All were mystically euphoric and delighted in dwelling on the missions they were going to accomplish. It was interesting to observe how, in the course of a week or two, the delusions modified and how the ideas expressed became more realistic. One man said that when he got home he would study for the ministry, another was going to help with church work, others as I remember were going to lead better lives. If there was a reason other than coincidence for the high incidence at one time of patients with this reaction is was never determined.

My recollection is that there were not a great many maladjusted persons with diagnoses such as psychopathic personality and simple adult maladjustment until the war was almost over. Then the number of admissions from the rear area service troops who had to remain at dull, uninteresting duties for long periods of time increased a great deal.

Peter B. Hagopian, M.D.—Dr. Hagopian served with the 33d Surgical Hospital and the 361st Station Hospital in Australia, the Trobriand Islands, and Mindanao. In his account to us, he gave very much the same figure of 80 percent for the return to duty of the general run of neuropsychiatric cases that we had from most of our competent psychiatrists in the Pacific. He remarked on the increase in the number of psychiatric cases when the embarkation time for combat duty approached.

Hagopian served in one of the most primitive areas, the Trobriand Islands, and commented on the etiological importance of such conditions, evidently felt as an actual threat by soldiers. Even in a noncombat setting, 10 percent of the admissions to this hospital were psychiatric. Among the factors listed by his patients were (1) not knowing what was going to

happen next, (2) the primitive area, (3) the failure of any end-point for rotation or discharge, (4) homesickness, (5) the lack of social life, overwork, and poor diet, and (6) the tropical climate.

Hagopian's account gave eloquent expression to the observation of many that even after sedatives, occupational-recreational therapy, and group therapy had been tried, any real and lasting change in psychoneurotic reactions came about through individual psychotherapy, sometimes reinforced by narcosynthesis. He did not himself use hypnosis.

Sanford R. Gifford, Jr., M.D.—Every now and then, a response to the inquiry made to obtain material for this history came back with the full color and flavor of the experiences as we remember them. As discussed earlier, griping was universal among medical officers overseas and psychiatric insight did not seem to reduce the level of complaint. There was a certain amount of reality in these attitudes, for the psychiatric service and the men who served it were often given rather short shrift by the chiefs of medical service and by hospital commanders. Psychiatry is still regarded with a somewhat jaundiced eye by some of our confreres, and 15 to 20 years ago the amount of antipsychiatric prejudice was often quite open or little concealed. As a very articulate and pungent letter, representative of the feelings of many of us, we are herewith reproducing a letter from Dr. Gifford, which not only is an excellent report of some of his clinical experiences but also mirrors the feelings of the psychiatrist in his frustration at the circumstances under which he was forced to serve.

I apologize for my discourtesy in not answering your first letter, but my silence does not mean that my feelings were one of indifference or disinterest. On the contrary, all kinds of very strong but very mixed feelings were aroused, of nostalgia and gratitude for invaluable experiences that could never be replaced and (I hope) can never be reduplicated, or indignation that some of the most vivid impressions would be unprintable in any official document, of conflicting wishes to sit down and write pages and pages or not to write anything at all. I have a trunk full of letters and even carbon copies of clinical records during certain periods of my service, which I've often thought of looking over but know I would never have time for until this summer. But if this will be of any help to you, I will try to give some impressions that stand out in my memory, just as they occur to me.

1. In 1944, I was in charge of a large closed ward service at the 237th Station (later General) Hospital in Nadzab, New Guinea. I was impressed by the large number of acute psychotic reactions in soldiers from combat areas, predominantly extreme catatonic states with mutism, violent excitement and negativistic behavior, with underlying florid paranoid delusions when they became more accessible. Many observers have reported extraordinarily rapid recovery in these so-called three-day schizophrenias, leading some to question whether these represented true psychoses in the ordinary sense of the word. I have no doubt that they were true psychoses, because a small number of other patients with hysterical pseudopsychoses could be readily differentiated from them.

From their previous medical records, however, I was struck by the fact that these psychotic states had continued for many weeks in the forward areas or hospitals where they seemed to respond quickly to a kind of homemade anaclitic therapy, using large doses of intravenous Amytal and sitting on the floor of the seclusion room with them

while helping them to eat, a procedure originally worked out simply to avoid the need for restraint or tube feeding.

Interviews with them after their recovery suggested that they were quite different from the equally severe anxiety states and hysterias of the open wards. Superficially they seemed more "normal" in the absence of previous neurotic traits and obvious family disturbances, and only a small number of them were actually psychopaths. I had the impression that in their previous lives they had dealt with their problems by action rather than thought or neurotic symptom formation, and that in the psychotic milieu of the battlefield they had reacted in a way that was biologically more "normal." in the sense of a successful adaptation for survival, than to develop neurotic symptoms or to continue fighting.

I have often wondered about followup studies on these men, whether they ever had any subsequent psychotic episodes. I later saw similar patients in several general hospitals on Leyte, where at one time during the Luzon Campaign almost 500 psychotic patients were being evacuated per month through a single closed ward service, but there was no time to obtain any personal history after their recovery.

2. At the 105th General Hospital in Queensland, at a Psychiatric Station Hospital in Milne Bay, and again in Nadzab, I experienced an increasing sense of futility and exasperation with the various rehabilitation programs that were directed, by official policy, to return as many patients as possible to active duty. This was especially true of certain veterans of the 32d and 41st [Infantry] Divisions, who seemed simply to have seen too much combat, been put through too many "reconditioning" programs in the deserts of Rockhampton and been overseas too long. It was also true of some of the very young soldiers who were immature to begin with and seemed to have had a minimum of training before being sent overseas and assigned to combat units.

Having seen many of these soldiers return to duty only to break down again and require reevacuation through the chain of hospitals, in a period of over a year at Nadzab, I became skeptical about the military economy as well as the humanitarian benefits of these attempts at rehabilitation. I also came to feel that a severe neurosis, with well-established determinants antedating military service, was a more severe and disabling illness than many a short-lived psychosis, where it was mandatory to evacuate the patient to the United States once the diagnosis had been made. I also felt skeptical about the percentages of patients successfully returned to full combat duty from these psychiatric treatment hospitals in New Guinea.

3. During a short interval as dispensary medical officer at a casual camp on Leyte, I witnessed an interesting minor epidemic of iatrogenic neurosis. This was a group of patients who repeatedly turned up at sick call with a variety of bizarre somatic complaints and hypochondriacal preoccupations, while awaiting reassignment to other units. These men had been hospitalized for very long periods of time on a research medical ward for the study of schistosomiasis, and many of them had had relatively mild symptoms or brief periods of actual illness. They seemed to have reacted to their prolonged position as what amounted to experimental subjects by a kind of regression, a tendency to see themselves as eternal patients, suffering from some mysterious and unpredictable oriental disease, unable to conceive of themselves as returning to normal military duty again. Some of their symptoms and hypochondriacal fears seemed to be derived not from their own illnesses but from what they had read or heard about the symptomatology of schistosomiasis. None of them seemed to be feigning or exaggerating these symptoms, such as their panic at being splashed with rain water by a truck passing in the road, and though they listened avidly to radio programs warning against exposure to schistosomiasis, this official propaganda was obviously not the cause of their reaction to prolonged hospitalization.

4. In Manila, from conversations with Japanese medical officers in a nearby POW camp, I was interested in the different types of complaints brought by Japanese soldiers

at sick call compared to our own soldiers, especially the different localization of somatic symptoms. While precordial pain, palpitations and cardiovascular symptoms were among our commonest neurotic complaints, for example a Japanese medical officer said he had heard such symptoms reported only three or four times, in elderly NCO's [noncommissioned officers] who probably had angina or coronary disease. I was also struck by the fact that all the Japanese troops in the Manila area had been adequately taken care of by a single closed ward, while our hospital had 10 closed wards and there were several other general hospitals with closed wards in the area. I wondered whether different cultural attitudes resulted in a difference in the actual incidence of psychosis, or only in the way such patients were handled (perhaps more psychotic patients would be found in Japanese stockades, for instance).

Many other men must have made similar observations and I look forward to reading the results of your formidable task of compilation.

Short Reports

Dr. Herbert S. Ripley, Jr., who served with the 9th General Hospital in New Guinea and the Philippines, had many interesting remarks on some of the major psychoses. With a few other of our respondents, he indicated that the relative incidence of psychosis was unusually high. However, he qualified this remark with the statement that, in most instances, these psychotic reactions were persistent only during the brief period of observation, and they may, of course, have been the schizoid types of reactions which were seen throughout the Pacific.

Dr. Howard A. Stellner, who served with the 54th General Hospital in Hollandia, remarked on the hyperactivity of the psychotic patient in the Tropics as being conducive to great physical exhaustion. This was noted by many men who served in the tropical areas of either the South Pacific or the Southwest Pacific Areas. Chemical sedation was, therefore, often used in place of wetpacks, and sometimes enormous amounts of chemical sedation of the types then available to us were necessary. Stellner also believed, as some other men have, that a greater percentage of disturbed psychotic patients were seen than would have been seen in an equal number of patients in civilian life. He referred to very intense but brief reactions. While roughly a third of these had been in active frontline combat, another third were merely from the combat area without any true combat experience, and the remaining third came from rear echelon areas. He also said that by far the most frequently seen cases were acute schizophrenic episodes with quick recovery. It should be recognized that, during active combat, the occurrence of an acute combat reaction is not only a psychological matter, but something which can at times be actually life-threatening.

Dr. Donald Hayes Russell served as chief of neuropsychiatry of the 116th Station Hospital at Port Moresby. He remarked on the large number of acutely disturbed patients flown in at the rate of 15 to 25 a day, some 2,000 over a 6- to 8-month period. Russell, in charge of the emergency psychiatric ward, had the task of giving these patients immediate hygienic,

supportive, and medical care. Many of them, although psychiatric casualties, were at the point of death from exhaustion, and a few did die despite every medical effort. These were not, of course, psychotic patients as a group, but 90 percent of them were diagnosed at the time as being psychotic with a schizophrenic type of reaction. In retrospect, this was almost surely the schizoid type of acute anxiety reaction which was remarked in many campaigns of the Pacific. Russell stated that in the 7 to 14 days they held these patients, many of them became less florid in their symptoms, although they still were somewhat withdrawn.

Throughout the communications which have been quoted or summarized in this chapter are comments on the complete inadequacy of the hospital facilities for the care of psychiatric patients, and particularly for the care of disturbed patients. Dr. Alexander J. Mozzer, then captain, MC, who was with the 12th Station Hospital at Townsville, Australia, found himself obliged to take care of psychotic patients in a small wooden house. To evacuate his patients to general hospitals, he sometimes had to put them in wetpacks for airplane travel.

Dr. Kenneth H. Abbott, who served with the 47th General Hospital in New Guinea, wrote that Metrazol therapy was given to acutely agitated patients at that hospital. In his memory, no electroshock therapy was available then or in his later experiences in the 57th Evacuation Hospital on Leyte and Cebu, and the 36th Evacuation Hospital on Luzon. Some of the depressive psychoneurotic reactions were treated in several areas by shock therapy, usually in the early part of the war by Metrazol (pentylenetetrazol).

Dr. Milton Spark, who served with the 60th General Hospital in New Guinea, wrote that intravenous Sodium Amytal or Metrazol shock were both efficient ways of treating depressive reactions. This is somewhat at variance with the experience in other theaters, where these reactions were treated psychotherapeutically only. The use of shock was generally confined to the Southwest Pacific during the war, and we recall few instances of any kind of shock therapy outside of insulin subshock being used in the South Pacific or in the Pacific Ocean Area.

One subject that has been discussed by many of our correspondents has been the effect of the long evacuation procedure in fixing the combat reactions. This problem has been presented succinctly in a letter by Dr. Richard L. Sutherland, who served in the Buna campaign in New Guinea and later in the 105th General, and then as chief of service in the 42d General Hospital. Like many of us, he deplored the evacuation to the Zone of Interior of such a large number of patients. He believed that the long delay in reaching active treatment centers produced a further breakdown in morale. In his own words: "We felt that one mechanism of defense for these soldiers was the maintenance of their neurotic condition, the alternative being to acknowledge that they had temporarily gotten sick to escape

an intolerable situation." In a general hospital, often the psychiatric task for the man evacuated for a combat psychoneurosis was the achievement of some kind of awareness and understanding so that, after a return to the United States, and ultimately to civilian life, there would not be an overwhelming necessity for the preservation of defensive neurotic symptomatology.

Dr. Wilmer Buller, who served with the 47th General Hospital in New Guinea, remarked particularly on the importance of inactivity in the staging areas as contributing to the occurrence of psychiatric disease. He further remarked on the poor preparation of American soldiers who came to New Guinea for what he called "their ordeal in the jungle." According to Buller, these men were "poorly adjusted before draft, came from broken homes, found no big brother guidance, had to shift for themselves in their thinking and occupying their free time."

In the various tropical areas, heat and rain and mud were obviously limiting factors in the preparation of facilities and in the actual work of psychiatrists. Dr. Mozzer, when with the 18th Station Hospital in New Guinea in 1944, found such conditions so depressing that his patients referred to the hospital as "a concentration camp."

Although during the Pacific war the men of the Army Air Forces naturally came under the purview of the Army Medical Service, we have remarkably few observations about psychoneuroses in flight personnel. Evidently, most of these men were taken care of by their flight surgeons and handled separately. At least they do not seem to have come as a group through any of the regular hospital channels. One of us (Beaton) served on Guadalcanal in proximity to the Thirteenth Air Force and had very few cases except in consultation for the flight surgeon. Dr. Lawrence H. Gahagan provided us with some material on neuropsychiatric findings in cases of officers, but he himself remarked on the absence of any common denominator of past or present etiology and on the lack of any particular relationship between the number of operational missions flown and the stresses encountered on those missions.

Miscellaneous Reports

In contrast with the smaller station hospitals, some of the general hospitals were able to have rather elaborate rehabilitation programs. Dr. David Rothschild, who served with the 35th General Hospital, wrote of the hospital's organized occupational therapy and recreational activities. He also mentioned the extensive use of wet sheet packs, which many of us used in the Pacific, although as we read back now it may seem rather strange that we used a modality which has largely passed out of psychiatric practice. Sometimes wet sheet packs, particularly in tropical areas, were risky because of the rapid rise of body temperature. We all learned early in the

game that we had to keep very close track of the body temperature of any patient put in a wet sheet pack in a humid tropical climate.

Dr. John D. Birch served the first 16 months of his Southwest Pacific time with the 54th General Hospital. At the peakload of operation at Hollandia, he had 10 wards of psychiatric patients, and the disposition problem alone was almost impossible. He served also with the 49th General Hospital and had the opportunity of giving the first electroshock therapy of the Southwest Pacific. Later, he was sent to the 316th General Hospital, at Manila, and then was on temporary duty at the 135th Station Hospital on Leyte, which was designated as a psychiatric center. Dr. Birch recalled that 65 percent of the admissions to the 135th Station Hospital were returned to duty.

Various therapeutic modalities received attention during the Pacific war. Dr. Henry M. Fox, serving with the 118th General Hospital, the Johns Hopkins Hospital unit, found that a subshock insulin treatment was useful not only in the treatment of psychotic reactions but in patients with anxiety states and other psychoneurotic disturbances. Many of the respondents to our letters remarked on the ubiquitous headache and backache, psychosomatization reactions of the American soldier in the Pacific. This is not the place to discuss the psychodynamics of functional backache, but this very real problem was met by Dr. Fox in his hospital by a program of cooperation with the orthopedic service and by psychiatric treatment and psychotherapy.

Some of the most interesting experiences from a purely neuropsychiatric standpoint were from men who served in the special neuropsychiatric hospitals. As previously stated, such a facility was created at the 82d Field Hospital on Okinawa, and at the 18th Station Hospital at Milne Bay, New Guinea, under the command of Samuel W. Joel (p. 760), and later at the 125th Station Hospital, on Leyte. Among the officers who served at the two Southwest Pacific special neuropsychiatric hospitals was Lt. Col. Richard H. Lambert, MC, who later became commanding officer of the 125th Station Hospital.

Dr. Howard E. Weatherly, writing of the experience of the 125th Station Hospital in New Guinea, contrasted the efforts of the division psychiatrist who tried to return all psychiatric casualties to combat duty with that of the area general hospitals, where the policy was to evacuate everyone to the Zone of Interior through disposition board action. Weatherly believed that, with this general policy in the theater, the role of the specially designated NP station hospital was really very small. He stated that many men assigned to Army psychiatry had no specialized training. He referred to some of these medical officers as "psychiatrists of opportunity, men who managed to wriggle into the specialty because it seemed less obnoxious than the practice of general medicine or surgery in the field." He called attention to the contrast between groups of patients managed by anxious,

oversympathetic psychiatrists and the "perhaps even large groups handled by harsh retaliatory psychiatrists."

Against the general policy of the Southwest Pacific, Weatherly said it was obviously in the best interest of the psychiatric patient to remain in the theater until he was capable of some type of duty. Evidently, later on, in the Southwest Pacific, more stress was laid on the retention of the soldier than on his evaluation, for which Weatherly gives great credit to the consultant in neuropsychiatry (Challman). Perhaps representative of the Southwest Pacific thinking about psychiatry are Weatherly's remarks that group psychotherapy seemed more useful than individual and deeper therapy.

Weatherly's report on the use of individual therapy under hypnosis is worth a complete quotation.

> There was a gradual decline in the use of intravenous hypnotic drugs in 1944 and 1945, as therapists found they seldom elicited the same dramatic abreaction, as described by Grinker in the procedure known as narcosynthesis. Often enough it was discovered that violent abreactions when they did occur were not observably successful therapeutically, at least in the short time patients were usually in the hands of a given psychiatrist. Under the guidance of both Colonel Challman and his successor, Col. Franklin G. Ebaugh, therapeutic conservatism and to the point of extreme cautiousness became the rule. Special procedures such as hypnosis and deep prolonged narcosis were largely given up in favor of rational treatment at the conscious level, in the realization that the more incisive therapies often laid open old and severe psychic wounds with which the therapist had not the time nor perhaps the ability to deal. Also in favor of this trend were the repeated observations of the ward officers that severe panic states, amnesias of all types, aphonias, extreme camptocormias, etc., usually subsided or disappeared with no more psychic manipulation than attitude, atmosphere and regimen therapy.

The homosexual problem was touched on by several of our correspondents, and perhaps the most dramatic experience in this regard was that of Dr. Weatherly, then major, in Brisbane in the first 6 months of 1944, when about 200 homosexuals were sent down from New Guinea, especially from one Red Cross Center which had become "literally a gay bar in the jungles." These men, according to Weatherly, had been trapped by the M.P.'s through vice squad techniques, but he managed to send all of them back to the United States as medical patients.

Later, in the Philippines, Weatherly had a somewhat different experience where he found that, when he was in a hospital with battle casualties received within a few hours, it was possible to return roughly 85 percent to duty within 15 days. He had no statistics on how many were returned to their original combat units and how many had to be reclassified for rear area duty.

Weatherly experimented in Leyte with "music therapy," and described a music therapy day, as starting with waking the men by stimulating music which took them up to and through breakfast. During the occupational and recreational periods in the morning, martial music was played. After lunch,

there was a rest hour with soothing music, followed again by the martial music that accompanied afternoon activities.

In the evening, when there was no movie, there was music in the category of pure entertainment, and he recalled that there were other categories, such as inspirational music. Of the 85 percent returned to duty, Weatherly believed that about 15 percent were actually returned to frontline combat duties, "because we were liberal and very humane in our attitude toward these men and not in the least punitive."

An interesting letter was received from Dr. John M. Caldwell, formerly colonel, who became chief neuropsychiatric consultant in the Surgeon General's Office immediately after World War II. Although a Regular Army trained neurologist and psychiatrist who had been assigned to Walter Reed, he was relieved and put in command of the 54th General Hospital. This was the largest Army hospital overseas and served 5 months at Milne Bay, New Guinea; 9 months at Hollandia, Dutch New Guinea; briefly at Batangas in the Philippines; and finally in Japan. Excerpts from Dr. Caldwell's letter indicate the reaction of some physicians to the psychiatric problem.

The 54th General Hospital cared for psychiatric casualties in New Guinea, and casualties from fighting on Leyte. The hospital had eight psychiatric wards, four of them closed wards with "strong rooms." About 100 psychiatric beds were available. Dr. Caldwell remarked, "The medical and surgical casualties occupied the main effort of the hospital, but the psychiatric casualties were taken care of without any undue problems."

According to Caldwell, no specific psychiatric program and no statistics were available. Shock therapy was introduced at this hospital, and utilized to a limited extent. A large rehabilitation section was set up. Caldwell's nursing staff contained many nurses who had been trained in psychiatry and this, he believed, was a strong element in the psychiatric service. The officers charged with the psychiatric service were, in his memory, not experienced, but they were reinforced with a clinical psychologist and with social work technicians. Of interest is the following statement: "I might mention that in the unit itself, during the time overseas there must have been well over 1,000 officers and nurses assigned, and well over 200 enlisted men. We had very little emotional disorder within the unit itself. However, toward the end of the war several medical officers became emotionally distraught over not being immediately returned home and discharged." Later in Japan, the 54th General Hospital was designated as the unit to receive all psychiatric casualties from the area. There were no particular problems, according to Caldwell's memory.

Group therapy received a little attention in the Pacific, some being done at the 82d Field Hospital on Okinawa and some being done at the 18th Station Hospital where Henry A. Davidson (then major, MC) set up a group therapy program. William S. Schram, who worked at the 18th Station Hospital, found that it was actually possible to do some group therapy on

a moderately dynamic basis. He remarked, in connection with personnel, an experience in the Philippines when a man who had been an obstetrician in private practice came to him and said that he had just been made chief of the psychiatric section of his hospital and wondered if Schram could teach him psychiatry. There is some testimony to the effect that, even in the rear areas, the amount of neuropsychiatric disease was a surprise.

Harold F. Corson, who served with the 105th General Hospital in Brisbane, Australia, noted that the neuropsychiatric section operated at full capacity for the entire 2 years of the hospital's existence. Another psychiatrist who served in a rear area, the Fiji Islands, was Dr. Theodore Lidz, then major, MC, who was chief of the neuropsychiatric section of the 18th General Hospital for 27 months. Like many others, he talked of the inadequacy of his staff to provide the kind of psychiatric service he wanted to provide.

Lidz received casualties from New Georgia, Guadalcanal, and Bougainville. He reported that the most severe psychiatric cases he saw at any time were Marine casualties from Guadalcanal. He also described the high percentage of neuropsychiatric casualties from the New Georgia campaign, which at one time completely overwhelmed his hospital. He made an interesting contrast between the types of combat psychoneuroses between Guadalcanal and New Georgia. From the Guadalcanal Campaign, he found mostly anxiety-type neuroses, whereas from the New Georgia campaign, there was much hysteria. From the Americal Division, after its stay on Guadalcanal, he noted, particularly, psychosomatic difficulties.

Dr. Louis W. Leskin, who was at the 126th General Hospital, New Guinea, noted that this hospital was established as an all-psychiatric hospital to care for neurotic patients. The intention was to return as many patients as possible to parent units after intensive therapy, including group therapy. In connection with the hysterical type of symptoms observed by Lidz in Fiji from the Guadalcanal casualties, it is of interest that Leskin saw a number of hysterias from the Buna campaign and listed amnesia, hysterical tics, and aphonia. Certainly the Buna-Gona-Sanananda fighting was one of the hardest campaigns of the entire Pacific war. Leskin also saw large numbers of patients from Munda.

Dr. Daniel W. Calvin, then major, MC, headed the neuropsychiatric service of the 132d General Hospital on Biak. His report is one of the few from the Southwest Pacific Area, which indicated that hypnosis was widely used. He also had a rather unusual occupational therapy service, evidently having access to tools and "hobby-like equipment." He gave a figure of a 70- to 80-percent return to duty rate of psychoneurotic cases, mainly to noncombat duty.

By the time the 132d was in operation, beginning in November 1944, local combat was presumably over, and it is not surprising that combat anxiety reactions reaching a rear zone hospital could not be returned to

forward area duty. Calvin made many remarks about personnel difficulties and about the heavy workload of the psychiatric officers.

In his hospital on Biak, Calvin was obliged to do 12 to 15 psychiatric consultations a day in addition to running his own service. He believed that there was a great lack of screening on the medical and surgical services before sending cases for psychiatric consultation. One of his officers on the service, a young psychiatrist who had had good training and was in private practice in psychiatry before the war, was transferred after a month and sent to a surgical portable hospital as an anesthetist. The happy ending to this incident was that the consultant in the area, Colonel Challman, when apprised of this action, achieved a new assignment for the officer.

THE BEATON DIARY [6]

When an attempt is made to reconstruct the medical and particularly the psychiatric situation in the isolated island garrisons of the Pacific, one finds very little pertinent data. We have a good many letters and reports discussing and tabulating the kinds of patients seen and the results of treatment. However, because of the War Department stricture against the keeping of any diaries, there are very few personal accounts. One of us (Lindsay E. Beaton), as the historian of this unit, was privileged to keep a running, day-by-day record and this was reviewed in detail before writing this history.

This author (Beaton) served in hospitals on New Caledonia, Efate, and Espíritu Santo, and on Guadalcanal, after that campaign had been completed. His descriptions probably are typical of what psychiatrists experienced, who saw their overseas service in such installations in various parts of the South Pacific. From many during the war and since, we have heard comments like those in the Beaton diary.

Among psychiatrists on the islands to the rear in the South Pacific, who did an unsung job, often dull but vital to the military effort of the theater, were the following: Samuel Burack, with the 71st Station Hospital on the Fiji Islands (Suva) and New Caledonia; Miltiades L. Zaphiropoulos, with the 27th Station Hospital on New Caledonia; Frank G. Kiesler, Jr., of the 31st Station Hospital on New Caledonia; Percy A. Bryant, of the 109th Station Hospital on New Caledonia; Maj. William H. Kelly and Samuel A. Victor of the 37th Station Hospital in New Zealand; Howard P. Gilbert and Paul Haun of the 29th General Hospital on New Caledonia; Woodrow W. Burgess of the 8th General Hospital on New Caledonia; David Crocker and Merrill Moore of the 39th General Hospital in New Zealand; Mortimer F. Shapiro of the 17th Field Hospital at Munda and Rendova in New Georgia; Lt. Samuel D. Lipton of the 20th Station Hospital on Guadalcanal; Maj. Charles A. Smith of the 9th Station Hospital on Guadal-

[6] Summarized by Col. Albert J. Glass, MC, USA (Ret.).—M. R. K.

canal; and Capt. John B. Allen, who served with Beaton in the 48th Station Hospital on New Caledonia; Efate, in the New Hebrides; and Guadalcanal.

We know there were others, whom we did not know personally or who were not recorded as functioning in a psychiatric capacity. In many hospitals, the psychiatric job had to be done by officers of other medical specialty. By all it was done creditably. All of these men, those named here and those not named, deserve far more than the salute of this mention. Unfortunately, it is all we can give.

Monotony

Throughout the diary, one gets the impression of the endless monotony of life on small islands far away from any urban sources of entertainment or recreation. One does not get the sense that tropical climate in itself was in any sense enervating or intolerable, although the lack of any change in the endless heat may have had psychological repercussions. More than anything, it seemed to be isolation that bothered the men of the garrisons on the small islands of the Pacific.

Throughout this diary, it is very easy to see the effect of such isolation on the reactions of hospital personnel also, and one notes increasing references to irritability and small bickering.

This monotony was, to some extent, alleviated later in the war, at least for the psychiatrists, by the institution of the consultant system. In the diary, there are many references to the enthusiasm engendered by the visits of the neuropsychiatric consultants (Billings and Kaufman). The diary is full of remarks about the focus provided by Kaufman's visits. From conversations with other men in the theater, Beaton is certain that this was a reaction shared by all the psychiatrists and one of the valuable aspects of the consultant system, particularly when a consultant made a point of visiting all parts of the theater on a continuous round of inspection and encouragement. That, upon the consultant's recommendation, a psychiatrist from the rear area could be pulled out for action in combat theaters was also a stimulus and a goal to look forward to.

Other visitors were also welcome and sometimes most stimulating. In Beaton's diary, during the days when he was stationed at Efate in the New Hebrides, one finds an account of the visit of the late Merrill Moore, then a major with the Yale unit in New Zealand. Those who remember Dr. Moore will particularly appreciate the story of his first hour on Efate, during which he took a swim, met the entire hospital staff, gave a lecture on shells, and dissected a holothuroidean (sea cucumber) fished up from the bottom of the bay on the boardwalk in front of the commanding officer's quarters. The corpse was left on its improvised autopsy table somewhat to the distress of Beaton's commander.

Indoctrination of Medical and Line Officers

One of the most important functions of a psychiatrist in the Pacific was the education of other medical officers and line officers, from company commanders to division generals. Some attention was also given to psychiatric indoctrination of noncommissioned officers. Various programs were initiated, including participation in island medical meetings by the psychiatrists of the general and station hospitals, advice by the same psychiatrists to garrison units on various islands, and provision of consultant services whenever required. On occasions, division medical officers were rotated through the psychiatric wards during periods of rest and rehabilitation in the rear islands.

One of the most important educational programs was instituted through Headquarters, POA (Pacific Ocean Area), the Tenth U.S. Army, and the neuropsychiatric consultant of the South Pacific, in establishing divisional schools in which psychiatric information was presented by lecture and demonstration to both medical and line officers. One of the earliest and most successful of these schools was one presented on Espíritu Santo in January 1945, to the 27th Infantry Division in preparation for its participation in the Okinawa campaign. The program of this school has been previously described, but the Beaton diary contains some additional observations, especially that line officers were as much a part of the student group as were the medical officers of the 27th Division.

The line officers attended with regularity, showed real interest, and entered into discussions. While the medical officers were given patients to work up under supervision, the line officers were not, but did actually observe narcosynthesis sessions. This bore later fruit in the Okinawa campaign when line officers proved to be much more sympathetic toward combat anxiety reactions because they had witnessed the actual abreaction of emotional content in men who suffered such decompensations. The faculty of the school was introduced to the high command of the division and most cordially received. It was even told that the G–1 of the division enlivened a staff meeting by a vivid reenactment of a Pentothal session which he had witnessed in the school.

One evidence of the impact created by this school was an episode that occurred to Beaton at the end of the Okinawa campaign. He was called to the 27th Division headquarters to testify in the case of a soldier who had broken and run during combat and had been accused of desertion. On examination, this patient proved to have an amnesia and a characteristic combat anxiety reaction. The Commanding General, Maj. Gen. George W. Griner, Jr., asked to see Beaton prior to the trial, and when he was told straightforwardly that this man was ill and that his symptoms were the result of illness, General Griner canceled the trial and returned the man to duty, after treatment under hypnosis to remove the amnesia.

PSYCHIATRISTS' COMPLAINTS

General

The personal complaints of psychiatrists fall into several categories: Misassignment was one obvious complaint, and another was the common slow or missed promotions. Many believed that their efforts were not appreciated by the command of their hospitals or by line officers. As in any group, officers were found in neuropsychiatric positions who felt that it was a kind of injustice for them personally to have been sent to this rather smelly and heated part of the world. Some who reached the Pacific later in the war believed that the original personnel treated newcomers like unwanted immigrants.

Although these complaints seem extreme, there may have been a little justice in them. This was felt particularly with the numbered general hospitals staffed by personnel from major American medical schools. It was found necessary by command at times to break up the staffs of these "university hospitals," which often had far more physicians of high specialty caliber than were needed for any one hospital. Such men were used better in other units and were able to gain positions of responsibility and adequate rank at a quicker pace. In addition, by the end of the Pacific war, medical officers who had been in the theater for 3 years or more did form something of an exclusive club with common memories of earlier and more difficult days and, perhaps, newcomers to the theater did feel a little out of things.

There were instances of very bad misassignment and Dr. Samuel Reznick tells how, when he got to Manila, he was transferred from a general hospital position to a nonmedical job with the Military Police and told that he was to help clear up prostitution. As he remarked in his communication to us, "Since there seemed to be nothing better to do, I made no objection to this assignment."

To indicate the fashion in which qualified psychiatrists were moved around in the Pacific, the experience of Dr. James F. Bing may be summarized. In slightly over a year, he served in hospitals from New Guinea to Tokyo. He started out with the 71st Evacuation Hospital at Noemfoor, later served with the same hospital in Manila, then as a psychiatrist examining occupants of the Santo Tomas prison camp, and finally in Tokyo with the 54th and 42d General Hospitals.

Dr. George Tarjan, who served late in the war in the Pacific with the 105th General Hospital on Biak and the 133d General Hospital on Leyte, recounted an amusing experience in connection with his being ordered overseas. He was ordered overseas from Letterman at the end of 1944 in company with nine other psychiatrists because of "an emergency situation in the Southwest Pacific." This resulted in all 10 psychiatrists spending 4 months in a replacement depot and ending up in another replacement depot

on Leyte. Dr. Tarjan humorously related that whatever emergency existed must have been over by the time they got there and, further, that the rumor of the day was that really there was an urgent call for 10 electroshock machines and that this somehow got changed into a need for 10 psychiatrists.

As an illustration of the way in which medical command sometimes regarded the psychiatrically sick, one can point to Dr. Joel's experience, best described in his own words:

> Perhaps the most memorable psychiatric experience was my proceeding by ambulance over 150 miles of unchartered terrain to pick up a psychiatric case. Air evacuation was not possible because he was "psychiatric," although this could have been accomplished in a few hours. It took four of us 3 days to effect the evacuation, and the patient was a very mild psychoneurotic. Indeed, he was considerable help on the way back aiding us in repairing innumerable flat tires, due to the lack of roads.

From the gripes and misassignments came lessons. Dr. Emmett B. Litteral, a Regular Army medical officer and psychiatrist with the rank of colonel, at one time the commanding officer of the 80th General Hospital and also base surgeon in New Guinea and, after the war, head of psychiatry at Letterman General Hospital, wrote that one of the important outgrowths of the war to neuropsychiatry in the Regular Army was the decision to initiate residency programs. This, he traced to the fact that hardly any of the Regular Army officers who had been in neuropsychiatry in peacetime had assignments within this specialty during the war years.[7] These men returned to their professional work convinced that this situation had to be changed.[8]

Denial of Emotional Factors

The psychiatrist was under constant pressure from the medical and line officers below and from the higher echelons above to deemphasize the emotional factors related to the combat anxiety reactions. As one reads the reports of the time, one notes instance after instance of "euphemistic denial," with stress on the fatigue and physiological factors. Psychiatrists in the hospitals and in the field could not change either official policy, which came from as high as the Surgeon General's Office, or local policies influenced by organically oriented physicians; on occasion, however, the South Pacific neuropsychiatric consultant could—and did. The following communication to the Office of the Surgeon General, by Colonel Kaufman, indicates both the frustration of the psychiatrist and his thinking on an important matter:

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[7] For a discussion of the assignment of Regular Army psychiatrists to psychiatric positions during World War II, *see* Medical Department, United States Army. Neuropsychiatry in World War II, *op. cit.*, pp. 18–19, 53, and 304.—A. J. G.

[8] In actuality, residency training in almost all medical specialties was established in the major Army hospitals shortly after World War II.—A. J. G.

Things have been relatively quiet here and so I have had an opportunity to think about a number of things. One of them is what I would call "ostrich mentation and semantics" in psychiatry. This as a result of recent pressure to deny the psychological aspects of most of our problems.

The history of psychiatry demonstrates one consistent trend; that is, the emotional need to avoid "stigmatization" of psychic illness. Demoniac possession has given way in modern time to some type of diagnosis which invites a physical rather than a psychological etiology. Manifold are the rationalizations toward this end.

Psychiatry which left its swaddling clothes in the last war and has reached adolescence in this one now is threatened with an infantile regression by this tendency.

The mental hygiene movement has for many years attempted to remove the stigma from mental illness. It has consistently preached that there need be no fear or shame connected with the fact that an individual had an illness of a psychogenic origin. Within certain limits the medical profession, especially psychiatrists, have come to that point of view.

A fundamental rule of psychotherapy, no matter what its particular orientation, is that one cannot treat an individual for psychoneurotic difficulties unless he gains some insight into the fact that his illness is primarily psychogenic.

It is now generally agreed that the largest single medical problem in the service is the psychiatric one. This means that since this age group represents a cross section of the country, the greatest single medical problem in the country is psychiatric.

Naturally the implications of this become rather difficult for many people to accept. Somehow the psychiatrist is blamed for the fact that he uncovers the problem. It is as if he were responsible for its existence; if he did not see the problem it would not exist.

Many subterfuges are being attempted in order to minimize the impact of this finding. The chief one in military psychiatry seems to be the utilization of verbal tricks to deny the problem.

The undoubted part that exhaustion and fatigue play as a precipitant of psychoneurotic symptoms has been used to shift the emphasis from psychogenesis to physiogenesis. Ergo the psychiatric problem is nonexistent and everything is all right with the world.

This type of playing with words or denial by euphemism is particularly dangerous in the military service. The diagnosis of operational fatigue for instance usually leads to the treatment of the fatigue and bypasses any rational treatment of the underlying psychological problems that may exist.

The argument that there is a stigma attached to the use of the term psychoneurosis is one of the half-truths that cannot be countered by use of a euphemistic falsehood. No matter what substitute term is used it soon will have the same connotation to the soldier. "One cannot kid the troops."

The history of the shellshock concept during the last war should demonstrate the fallacy and danger of attempting to dodge the issue. The recognition of the psychogenesis of most of the cases resulted in an almost immediate increase in therapeutic results.

It is a major fallacy to try to avoid the clear-cut issue which faces the services. It is bound to lead to disaster both for the service and the individual. If, as some argue, a psychoneurotic should not pilot a plane, calling him a case of operational fatigue will not in some miraculous way enable him to do so.

All programs for rehabilitation and handling the problem, so far reported, are basically psychotherapeutic in nature. Those based on the assumption of euphemistic denial fail in the fundamental requirement of psychotherapy inasmuch as they deny to the patient the validity of his illness and treat him by definition rather than etiology. The most valuable adjunct, that of insight, is consciously minimized.

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Psychiatry today needs the forthrightness of the modern syphilologist. We ask our patients to face reality and present him with a distorting mirror as that reality.

I was particularly impressed with that attitude in a recent report on a merchant seaman. The constant reiteration that the men were protected from the knowledge that they might be neurotic but were told they suffered from "War Nerves" is almost pathetically naive in its implications. In my experience I have never had any difficulty with a soldier, provided I had the opportunity to discuss his problems quite frankly, especially if I was able to give him some idea of how artificial the rigid categories of normal and abnormal really were.

As you know I feel rather keenly on this subject. Not only in terms of the immediate concern to the service but also its implications for the future of psychiatry.

Instead of using this tremendous opportunity to wipe out the stigma and inculcate into the individual and the group that there is nothing to be ashamed of, we pander to medical and other prejudices. The result will be, in all probability, to set ourselves back several generations.

This has been a long essay rather than a letter. I had previously written Bill M[enninger] in a similar vein, but I wanted to get myself on record as to what I believe is the most practical aspect of therapy and policy.

COMBAT PSYCHIATRY

Philippine Islands Campaign

Proceeding to observations of our correspondents on purely combat psychiatry, it is surely fitting to start with the Japanese invasion of the Philippines in December 1941.

Bataan and Corregidor.—To give some setting to the neuropsychiatrist's observations during the first Philippine Islands Campaign, it may be of interest to point out some of the military facts and indicate the medical services which were available. The buildup in the Philippine Islands, particularly on Luzon from July 1941, was extensive. Some 22,000 U.S. troops, including almost 12,000 Philippine Scouts, were under arms in July 1941, and by 30 November 1941, the total number had increased to more than 31,000. By the time of the invasion, the Philippine Army numbered more than 100,000 men. As one reads the official history by Louis Morton, "The Fall of the Philippines," [9] one cannot help being impressed by his remarks on the psychological unpreparedness of both the Filipinos and the Americans for war.

Maj. James G. Bruce, in an interview given in the Surgeon General's Office, in June 1945, told of arriving in Manila in the early summer of 1941, where he became chief of the general medical section at Sternberg General Hospital: "When I arrived in Manila, although I had been expecting to find everything bristling with military activity, many defenses around Manila Bay, the Harbor and port area, I didn't see much in the way of military defenses. This being the Tropics, the policy had always been to work in the

[9] Morton, Louis: The Fall of the Philippines. United States Army in World War II. The War in the Pacific. Washington: U.S. Government Printing Office, 1953.

morning and loaf in the afternoon. This was still the policy in August of 1941. It was in November 1941, I believe, that this policy was changed, and we began to work in the afternoon also."

The jungle warfare of Bataan was an unusual setting for American military effort, and one for which perhaps preparation had not been well made. It was the type of combat that American troops were to engage in, in the Pacific, many times in the 4 years that lay ahead. One cannot read the documents available on warfare in the Philippines without being struck by the effect on troops of the physical conditions and the diseases that arose in the process of jungle warfare. On Bataan, diseases like malaria, dengue, scurvy, beriberi, amebiasis, and dysentery were ubiquitous. There was not enough quinine for preventive use, and before the end of the campaign, the command had been largely riddled by disease.

In his history of Medical Department activities in the Philippines, Col. Wibb E. Cooper, MC, wrote that Corregidor should be called "a true medical defeat." [10] The combat efficiency of the troops on Bataan fell below 45 percent in the middle of the campaign and below 20 percent by the time of the surrender.

Japanese propaganda sheets, which were spread over the area, had little effect on the morale of the troops. According to Morton, however, the Japanese radio was "quite effective." Artillery bombardment and aerial bombing were apparently the stresses that most affected our troops from the psychological point of view. There are other remarks about the effect of various deprivations on morale. Morton commented that the scarcity of cigarettes on Bataan created a morale problem and that the troops greatly resented the higher cigarette rations on Corregidor.

Medical services available to the troops in the Philippines consisted, first, of the hospitals in the Manila area, Station Hospital, Fort Stotsenburg, and Sternberg General Hospital; later, General Hospital #1 and General Hospital #2 were established on Bataan. Finally, there was the Corregidor station hospital. Other hospital installations were minor, in the provinces and in the mountains of Luzon. Hospitalization became increasingly large, and at the time of the Bataan surrender on 9 April 1942, there were 12,000 hospitalized patients, including both Filipinos and Americans. Only one man with psychiatric training was available, at the time, in the Philippines, Lt. Col. Stephen C. Sitter, MC. Colonel Sitter served in Manila, on Bataan, and on Corregidor, and was later a prisoner of war in the Cabanatuan POW camp. His memoir, which we will quote from extensively, is one of the prime psychiatric documents of the war (see also ch. XXVI).

Morale is stated to have been fairly good in American troops at the onset of the war and during the early part of the Bataan defense. Perhaps the men did not realize that the issue had already been lost. Later, as it

[10] Cooper, Wibb E.: Medical Department Activities in the Philippines From 1941 to 6 May 1942, and Including Medical Activities in Japanese Prisoner of War Camps. [Official record.]

became obvious that there was to be no rescue of Philippine and American Forces, as ammunition ran low, and as food became scarce with starvation an actual problem, morale fell. Despite low morale, very little neuropsychiatric disease was actually observed.

As an illustration of the attitude of the men in the Philippines, one can quote the doggerel that apparently was repeated throughout the units in the Philippines during the last days of the campaign. "We're the Battling Bastards of Bataan. No Momma, No Poppa, no Uncle Sam. No aunts, no uncles, no cousins, no nieces. No pills, no 'planes, no artillery pieces, And nobody gives a damn." In trying to reconstruct the events from a medical and, particularly, neuropsychiatric standpoint, we have been fortunate in finding documents containing original observations of medical officers who were in the Philippines, and who later served in the POW camps. The information available is far richer than most have assumed, and it was not until the authors of this history began to research the basic material that they became aware of some of it.

In our opinion, the interviews taken by the War Department from medical officers who were prisoners of war in the Philippines and in the Japanese home islands after the fall of the Philippines are probably the most moving and vital documents about the whole Pacific war. The most important of such documents from the neuropsychiatric standpoint is the interview given by Colonel Sitter. Full credit should be given him for a magnificent job done under the worst kind of combat conditions and later under the arduous and terrifying conditions of the Cabanatuan prison camp.

When Colonel Sitter first went to Sternberg General Hospital, in January 1941, he was assigned as chief of the neuropsychiatric section, having just completed a year's postgraduate work in psychiatry at St. Elizabeths Hospital in Washington, D.C. He found very little neuropsychiatric facilities, and even remarked that someone had previously combined the tuberculosis section and the neuropsychiatric section, and that the structure of the wing of the hospital in which the neuropsychiatric division was housed, was a wooden firetrap. He faced a herculean task in training personnel at a time when the increase in the Philippine Army had greatly enlarged the number of neuropsychiatric patients.

Colonel Sitter contrasted the cases before the outbreak of hostilities with those that occurred later. When he first went to the Sternberg, a chief cause of admission to the neuropsychiatric section was delirium tremens; it was possible in Manila, at that time, to stay drunk for a week on $5. As a result, the incidence of acute alcoholism was high. He also noted a number of neuroses among the younger men. Among longtime soldiers who were drinking heavily, he classified many of what he called, in the terminology of the time, "psychopaths." Interestingly enough, he found that these men did well after combat had started. "We had a number of psychopaths in the

ward at the time the war broke out, and were able to follow about a half-dozen cases through the war. The old alcoholic, usually unreliable, did all right in the war, which illustrated somewhat that the psychopath is merely inhibited by the restraints of civilization, and when these restraints are off, he is all right."

When Manila was bombed, there were many battle casualties, but, according to Colonel Sitter, very few psychiatric casualties. The neuropsychiatric section was immediately cleared by releasing the "psychopathic cases," who returned to their units. The marked anxiety cases and the psychotics remained in the Manila hospital and were left when it was evacuated and Colonel Sitter and his staff went to Corregidor.

As an illustration of the shortness of personnel, Colonel Sitter was assigned as neuropsychiatrist to the Corregidor hospital, and also as medical inspector of the harbor defenses. The Corregidor hospital, at the time he arrived, had a capacity of 200 patients. He did not remark on it, but it has been described in the Morton history that there was an obvious anxiety disease on Corregidor, which was known jocularly as "Tunnelitis," referring to those who would never leave the safety of Malinta Tunnel.

Colonel Sitter "commuted" to Bataan from Corregidor to take care of patients on Bataan.

> On Bataan, as on Corregidor, the relative paucity of mental cases was very surprising. I think in part that that was due to the type of warfare. There was some bombardment, some artillery fire but it wasn't sustained. The mental harassment which the men had to undergo during bombings and strafings was brief, and the typical cases that we received were the superficial anxiety type, which would require three to four days of hospitalization. After hospitalization, most of these cases were well enough to go back to their units. Some of these cases had recurrences the next time they were exposed to bombardment, and, of course, if we found out by studying these men closely after three or four trials that they couldn't take bombardment, we sent them over to Bataan to some rear-line outfit like Quartermaster. The cases on Corregidor were principally with antiaircraft outfits. When we sent them over to Bataan they got along all right.

For a full appreciation of Colonel Sitter's comments, it should be noted that other medical officers made the same general observations about psychiatric cases. These observations have been difficult for psychiatrists to accept for, in general, their tenor is to the effect that, despite severe combat conditions, disease, lack of food, surety of defeat, and all other elements that would lead to a high incidence of mental disorders, very little psychiatric disease was observed in the first Philippine campaign.

Also, according to Colonel Cooper, no serious problem was presented on Bataan or during the Corregidor siege by "battle fatigue." Under bombardment, however, the fatigue "resulting from constant nervous tension" seemed to decrease the ability of the troops to perform. On heavily bombarded Corregidor, Cooper reported that cases of battle fatigue were few in number "only a handful of patients, six or eight, were in the hospital with this diagnosis." As one learns how the Japanese had a planned pro-

cedure of disorganizing and demoralizing an already defeated army, the paucity of psychiatric diseases is noteworthy. Later in the prison camps, POW experiences were almost unbelievable; yet, even there, according to Cooper, very little psychiatric disease appeared.[11] Exactly the same observation has been made about the German concentration camps in Europe.

It was not only in Camp O'Donnell where Colonel Cooper served that there was evidently little neuropsychiatric disease. Dr. Lester I. Fox, then captain, MC, made the same observations in Bilibid prison.

Miss Marie Adams, Field Director, Hospital Service, American Red Cross, in an interview in the Surgeon General's Office, on 7 June 1945, described conditions in Santo Tomas, one of the large prison camps, as follows: "The nervous conditions of the internees became greatly aggravated and accelerated during the last year. We had a number of mental breakdowns. However, on studying the histories of each patient, we found that none was a new case. We rather congratulated ourselves on that, because we had anticipated that there would be many mental breakdowns. There were four or five attempted suicides, none of them attributable evidently to internment per se."

Some of Miss Adams' other observations are of interest. She noted that at Santo Tomas, the doctors did not use blood plasma until August 1944, and then as a food substitute. During the interview, Miss Adams made the following comments about the psychiatric changes that took place toward the very end of the war:

> Among the minor irritants toward the last, was the fact that we had to bow to every Jap we met. That seemed to get on people's nerves more than any other single thing. It didn't particularly disturb me, because I had had to do it at the military camp where I had interned previously. In the last few months there was a tension among the internees that is almost indescribable. Irritability is one of the first symptoms of starvation, and certainly that symptom was marked among us. We were all cross, irritable, and edgy. We argued about things that were utterly insignificant. We were ready to claw each other's eyes out over nothing at all. When I went to bed at night, I felt just on the verge of screaming. I ached to the ends of my fingers and toes with the most horrible ache that I have ever experienced. We were so thoroughly depleted that frequently I would sit on my bed and stare at the sink in the corner of the room, wondering whether it was worthwhile to make the effort to get up and go over to wash my hands, or whether it wouldn't be better to wait until lunch time to do it, because it would save that much energy.

In the POW camps, evidently some psychotic patients were hospitalized. The Japanese had a rather interesting attitude toward the psychotics, according to Dr. Bruce, who was interned at Cabanatuan and Bilibid. Once, when a psychotic patient had escaped from his ward and broken into a Japanese storeroom and stolen food, he was not punished because, the

[11] For some understanding of the hardships our men experienced at the prison camp at Cabanatuan, see Cooper's description of the situation in chapter XXVI, pp. 938–939.

Japanese Quartermaster said, "Well he is psychotic; he doesn't know what he is doing."

After the surrender of Corregidor, Colonel Sitter was interned at Cabanatuan. Of the psychiatric experience there, he said: "During the whole time that we were at Cabanatuan, we had very few neuropsychiatric patients. I think the highest number was about forty. That is rather astounding, until a little thought is given to the subject. I believe that the conclusion of many of the doctors who were over there is that most of our potential mental cases died in 1942 and early in 1943." Cabanatuan had a population at its lowest of about 4,500 people, and the hospital population ran between seven and eight hundred.

Conclusion.—The Philippine experience from a neuropsychiatric standpoint is offered here as a historical document. It seems fair to conclude, however, that under the particular circumstances of that combat and of internment in prison camps, there were relatively few psychoneurotic diseases. One might criticize this observation if it had been made only by nonmedical people or by medical officers without particular psychiatric training or interest. However, it is difficult to explain the observation merely on the grounds that the situation was such that the obvious psychoneurotic cases were not recognized, when one has at hand the document of Colonel Sitter, a trained psychiatrist. Many officers explained the sparsity of psychoneurotic disease on the grounds that no psychological gain could possibly result from such disease. It has been stated that there was no possible retreat from reality and it is of interest to note Sitter's observation that antiaircraft personnel who had been exposed on Corregidor and had developed anxiety could get along without symptoms when sent to Bataan, which certainly illustrates that security is a relative matter. Bataan was the rear area to which escape was possible from Corregidor, unbelievable as that statement may be to people sitting in the safety of the United States.

According to Col. Carlton L. Vanderboget, MC, the surgeon in charge at the Station Hospital, Fort Stotsenburg, during the initial bombing of Clark Field from 8 through 24 December, the entire period in which the Fort Stotsenburg hospital was open, between 750 and 850 patients were admitted, and fewer than five were neuropsychiatric. It would seem difficult to explain this observation on the theory that psychiatric combat disease did not develop because the men felt there was no haven of escape, since certainly, at that time, the average soldier did not realize that the battle of the Philippines was lost and that there was no possibility of rescue.

Sitter believed that the savage brutality, to quote his own words, of the Japanese onslaught in the first days of the war, including the bombing of Manila, which had been declared an open city, equipped both soldier and civilian alike with a protection against any abnormal psychological reaction. He speculated that perhaps anger toward the enemy was sufficient to

neutralize both normal fear reactions and conflicts about killing one's fellow man. This was Sitter's formulation at the time. He also believed that an important factor was that "there existed until about April of 1942 a strong belief that reinforcements would eventually reach us, and help drive the invader from the islands. Messages from the United States had assured and reassured us that 'thousands of planes and hundreds of ships would be sent to the aid of beleaguered Bataan and Corregidor.' "

Sitter observed also about Cabanatuan that there was a low incidence of mental disease among the captives at the camp: "When the population at Cabanatuan was approximately 10,000 to 12,000 our psychotics (?) did not number more than about 40." He remarked that, toward the end of the war, the rate of incidence of mental disease climbed rapidly. His explanation was that, in the early period, most of the internees were so engaged "by the pursuit of the primitive instinct to live that problems concerning the psyche were diminished by the individual himself." During the second period at Cabanatuan, about 1943, a concealed radio in the camp brought good news from the United States, and it was believed that the Americans would arrive almost monthly and he believed that this kept the incidence of mental disease down. During the last stage, in 1944 and 1945, it was thought that the failure of relief or help decreased the mental stability of the group as a whole.

Division Psychiatry

11th Airborne Division.—We have been able to get less material from division psychiatrists than we would have liked, but what we have has been vivid and informative. As an example, we reproduce a report from Dr. Harry L. MacKinnon, who as a major, MC, was division psychiatrist with the 11th Airborne Division from November 1943 to November 1945.

As division psychiatrist for the 11th Airborne Division from November 1943 to November 1945, I took part in the outfit's activities in four distinct periods—the training in the States, the overseas precombat, the combat, and the occupation. Some pertinent observations on each of these phases follow.

I. Training in the States (November 1943 to May 1944), Camp Mackall, N.C., and Camp Polk, La.

In addition to the helping of those with temporary emotional problems and the routine weeding out of those who slipped through the induction centers with fullblown emotional or mental conditions or who were developing these, there appeared to be two important tasks:

1. The education of the medical and line personnel in basic mental health concepts.
2. The understanding and the handling of the specific emotional problems connected with the airborne outfit.

The first problem became one of finding ways to get across to the medical personnel that conditions need not be either physical or mental but a combination; and to the medical and line personnel how to avoid the Scylla of overt hostility and the Charybdis

of oversympathy as far as the emotionally disturbed soldier was concerned—thus giving him the best chance of responding to such positives as pride of outfit.

It soon became apparent that the formal lectures suggested were not applicable to this group. (As psychiatric consultant, at the present time, to the Air Force hospital at Wright-Patterson Air Force Base, I am indeed gratified to realize how much the military had gained in flexibility in the past 15 years.) For here were men who felt they were special, chosen, different. Here were men who did not want to conform to anything save their own nonconforming differences. Here were men who did not want to be told but who wished to take part, and a very special part.

So with the help of W. O. Jacobs (who had had experience in the writing and production of radio skits), a plan was devised whereby the medical (and some line) personnel could put on "plays" for line (and some medical) personnel. In the process, those who were doing the acting would get some ideas (was the theory) and pass along these to others. Also the observers would learn, it was hoped. In other words, the medical personnel might learn a lot by teaching the line and the line might get some new ideas.

From the * * * skit, * * * it was pointed out that some physical conditions could exist without symptoms, how emotional problems can lead to symptoms, and how resolution of the conflict can lead to symptom relief; how understanding may help to remove symptoms far more than overt hostility; how malingering and "goldbricking" are the exception rather than the rule; how the rest near the front in combat plus the positive attitude that the soldier wants to return to his outfit may mean *far more* than weeks of treatment at an evacuation hospital.

Actually, however, far more was gotten across, I believe, in an informal manner over a bottle of beer or at the card table. This applied to the special problems of the airborne in particular, since these were dear to the hearts of all. A good many of the battalion surgeons and other medical personnel eventually got the feel of how the paratrooper enlisted to prove himself (and often specifically to prove he did not have acrophobia) and how inducted glidermen were trying to compete with him; and what seemed much more important how to use the knowledge in a positive way.

II. Overseas Precombat (May 1944 to November 1944), New Guinea

Under the stimulus of expected combat and the monotony of the tropical heat, there seemed to develop a curiously different attitude about "acting out." In the States, a good many of the line officers had almost glorified this type of behavior. Now they seemed not only concerned but often overconcerned. This led to wanting to court-martial some soldiers who needed psychiatric help and sometimes to wanting to dispose of through psychiatric channels some soldiers who needed disciplinary action.

A humorous example of the latter comes to mind. One day, one of the generals said to me, "Lt. T. is going to Australia and putting on major's leaves in order to buy things for special services. Then he comes back here and changes to his lieutenant's bars. Now, don't you think that shows he's crazy?" I replied, "General, if he didn't change back to lieutenant's bars I would indeed think he was crazy," (the general roared).

And I think this also illustrates what I felt were some of my important attitudes toward my work at that time; to observe, be casual, and encourage good humor.

Certainly this applied profoundly to one particular area. A good many line officers, and others, became greatly concerned about the few cases of homosexuality. They insisted on their being removed at once as if the whole outfit were in grave danger. And, about the same time, there were many reports about the "Phantom" or "thing" who attacked at night and had the capacity of being in many places at one time. The rumors spread like wildfire. Now, what does a dynamically oriented psychiatrist do when he is dealing with latent homosexuality "en masse"? He smiles to himself, but he doesn't even breathe a word to any of the battalion surgeons that this might be what's underneath the need to prove. No, this is a time for calm, casual attitude and a sense of humor. So he says, "The boys are restless, they want to demonstrate their strength, they are

eager for combat." And curiously enough at a time when combat seemed close, there was a general settling down, and a native was found pilfering in one of the tents. The "thing" had been caught and no one would be bothered by the "Phantom" again. And no one was.

III. Combat (November 1944 to May 1945) Leyte and Luzon.

The 11th Airborne's engagement in Leyte was mainly a "mopping up" procedure and the psychiatric casualties were few and sporadic (as were the combat activities). There was plenty of time for the individual case—plenty of time, that is, until all hell broke loose for headquarters and the engineers. About two to three hundred Jap paratroopers jumped into an area the engineers occupied. Special troops were nearby. For the next 36 to 48 hours it was necessary to be a physician first and a psychiatrist second. There was much emergency treatment—first aid and surgical.

Luzon was a different story and more like what we had read about in the texts. For awhile, it was rather full scale operation and a medical clearing company was set up on the village square at Nasugbu. For a few weeks, that large tent was occupied with psychiatric casualties. Some were treated with Sodium Pentothal and Sodium Amytal interviews (and allowed to abreact their combat experiences). Others were treated more conservatively. Some were not treated but evacuated—because of their condition being too fixed to handle at the clearing company. It was a time of mutual respect between the medical officers and the enlisted men in the medical department. Everyone was doing his best to help all he could. And, results were gratifying—63 percent were returned to duty and this did not include those treated at the front and returned to duty. And this was combat with heavy artillery.

The "mopping-up" in Luzon was similar (psychiatrically speaking) to that on Leyte—with one exception. There was a fresh memory of the more severe combat and the smaller encounters took on a more frightening aspect to the individuals concerned. Emotional conditions became more fixed and the return to duty rates for the next 2 months were actually lower than the rate during the heaviest combat. Then, too, by the very nature of this type of combat there could not be central localization of treatment as there had been. But morale remained surprisingly high.

IV. Occupation, Japan.

The war was over and the catchy phrases a group of us in headquarters had helped to circulate were now more than morale builders. "Back alive in forty-five" was no longer a byword to counteract the anxiety of the possible airborne landing in Japan. It was a reality.

There seemed to be two contradictory forces at work. The paratrooper and the gliderman were "cocky" again but impulses were a bit toned down since the anxiety was now less than before combat and they were a great deal wiser and more mature. On the other hand, the Japanese were their recent enemies and since they were the first to enter Japan there was a good bit of feeling entitled to the "spoils," entitled to exploit. So the net result was about the same. The paratrooper was still a paratrooper and the gliderman was tough, too.

27th Infantry Division.—In another part of this history, a discussion of the Marianas operation has been contributed by Dr. Albert D. Pattillo, then major, MC, who was the division psychiatrist of the 27th Division. He has also transmitted more personal retrospective observations about his long service in the Pacific. In the Saipan operation, the number of psychiatric casualties was small, which he believed was due to the short duration of action, although it was intense action. During the Saipan operation, he did not operate at the division clearing company, but at the 38th Field

Hospital which was only a short distance behind the lines. Following the Saipan operation, the 27th Division went to Espíritu Santo in the New Hebrides for rest and rehabilitation and did not have a happy experience there. Pattillo summarized the recreation on Espíritu Santo as "swimming and boating, gambling and bitching." He paid tribute to the School of Military Neuropsychiatry held under the direction of the POA neuropsychiatric consultant (Kaufman), during January 1945.

During the Okinawa operation, the 27th Division again had very few psychiatric casualties, but admittedly did not see a great deal of action. Pattillo related how, at the clearing company of the 27th Division, the POA neuropsychiatric consultant, on one occasion, hypnotized for removal on a litter an anxiety stricken patient actually under fire. The 27th Division, before the Okinawa campaign, received a good many replacements while serving on Espíritu Santo, and the division psychiatrist remarked then on their poor quality, which made both the medical and line officers feel that the bottom of the manpower barrel at home must be close to being scraped. Pattillo had one other interesting observation at the 27th Clearing Station during the Okinawa campaign. Soldiers passing through the clearing station were offered a choice of a drink, either hot tea, hot chocolate, or whisky. He noted that the majority of them requested hot chocolate.

43d Infantry Division.—Dr. John J. Mohrman, as captain, MC, served with the 43d Infantry Division, at the clearing company of the 118th Medical Battalion. He remarked that, to his knowledge, there was no psychiatric orientation of either officers or men in the division until after the New Georgia campaign. He insists with great pertinence that such orientation should be a required course at the U.S. Military Academy, West Point, N.Y., and at the Command and General Staff School, Fort Leavenworth, Kans. It was not until after the New Georgia campaign that the division table of organization provided for a division psychiatrist, and Mohrman was so assigned. After this, under the direct stimulus of Colonel Kaufman, psychiatric screening was initiated in the 43d Division. Mohrman noted the good reception of this program by command, and implied that the return of the division to combat and its subsequent fine record, may have been due, in part, to this solution of psychiatric problems.

We have little information from the lesser operations, although some of them were extremely severe. On Biak, for example, there were 6,811 disease casualties, and 423 hospitalized combat fatigue cases. Of the disease casualties, 1,000 were cases of scrub typhus. This was one of the toughest battles of the Pacific war, particularly the battle at Mokmer airdrome. Noemfoor, Sansapor, and Morotai were short and incisive and, while combat in the Palaus was rugged, this was mostly a Marine operation. Our only report from Morotai was from Dr. Donald P. Morris, then major, MC, who remarked little that was unusual, although he did state in some of his

personal letters at the time that he felt that psychotherapy was successful in the combat anxieties.

81st Infantry Division.—There has been very little psychiatric information about the Angaur-Peleliu campaign, but we are fortunate in having two contributions for this chapter. Dr. Mortimer F. Shapiro (formerly major, MC) was division psychiatrist of the 81st Infantry Division and we quote herewith from his report to us about the experiences of that division on the Palaus.

In retrospect, one of the things that remains impressed on me was the impossibility of correlating the ordinary neuropsychiatric criteria by which a man was accepted or rejected from the service at induction and the rapidity and intensity with which psychiatric breakdown occurred under combat conditions. Repeatedly, I was amazed to find individual's brought in, in acute anxiety states whose past history, on the superficial plane of examination possible at the time, showed none of the distortions one might anticipate. Similarly, I was puzzled to notice that individuals who, in the precombat situations, had shown clinically significant forms of anxiety, often sustained combat situations of great intensity and prolonged stress without breakdown. I concluded that the multiplicity of factors that could result in the breakdown of any individual would be difficult to determine, in advance, on any routine mass psychiatric examination such as is done at induction.[12]

The Angaur-Peleliu campaign, for the 81st Infantry Division, was in effect a sharp, short-lived action. The problem of the relationship of prolonged physical fatigue to acute breakdown was therefore not encountered to any significant degree. The hospital was situated very close to the frontline—usually within a mile or so. Psychiatric casualties, therefore, were brought in relatively rapidly after the demonstration of their breakdown. Almost all casualties demonstrated acute anxiety. This was manifest in pallor, trembling, incoordination, and sometimes disorientation. The anxiety was usually accompanied by a relatively severe depression which did not manifest itself until after the first 24 hours. The soldier's initial preoccupation seemed to be with self-justification. Usually, there was a description of a horrendous situation which the soldier had sustained bravely but had then become overwhelmed by absolutely inhuman conditions. These heroic recitals usually had little factual background. They obviously were defenses set up by the individual to counteract the shattering effect of the anxiety.

As was every other psychiatrist, I was impressed with the enormous role that morale played. By morale, I mean group identification. Where the individual felt himself to be part of a group he seemed to withstand stress quite well. When something impaired the integrity of the group, such as the group leader becoming a casualty, breakdown then occurred with great rapidity among the members of the particular group.

I do not recall that it was possible to return many men who reached the hospital to active combat duty. It seemed to me that once breakdown had occurred, of intensity sufficient to warrant his being sent to the field hospital, that soldier was through, at least for the immediate future, as a combat soldier. I recall that it was possible to send a fair number of these soldiers back to their units after they had received sedation, food, rest, and some superficial support of psychotherapy. However, these individuals almost invariably returned within several hours of their discharge from the hospital. Later, some of the small unit commanders, to whom some of these casualties had been returned, expressed opinions indicating that these men were more of a hazard than a help, even if they could stay an additional day or two in combat.

After the Anguar-Peleliu campaign, the 81st Infantry Division was not involved

[12] A major lesson learned by most military psychiatrists in World War II.—A. J. G.

in any active close combat. Units did take some part in mopping-up operations on Luzon, but in essence there was no severe combat situation. The usual psychiatric problems encountered were those associated with some breach of military discipline. These offenses seemed often to be precipitated by friction within the small unit group. After V–J Day, there was, I believe, a significant increase in the number of these problems. Military service, at that time, seemed pointless to a lot of the men. There was considerable envy and hostility toward civilians and toward other soldiers who were scheduled to be returned to the States. This was also a period of time in which group identifications were disrupted because of discharge of some of the members.

One curious problem encountered during those times was the outbreak of anxiety in a number of individuals who feared return to civilian life. These individuals had doubts as to their ability to make a living and also usually had marked problems in their domestic situations. Sometimes, this anxiety was expressed in the form of somatic symptomatology.

Dr. Heyman Smolev, as a major, MC, also served as division psychiatrist with the 81st Infantry Division, and evidently in the Palau campaign both he and Dr. Shapiro served in this position, Dr. Shapiro having come in through the 17th Field Hospital and taking over the division psychiatrist job at the end of the campaign. Dr. Smolev's letter is also quoted:

Our first landing on Peleliu was made with the fourth and fifth wave of troops and within a few hours the field hospital was set up. In the confusion of the early assault on such a small island, we assisted with almost any medical and minor surgical problems, but within 12 hours were able to receive the NP cases in a separate tent.

I do not recall actual numbers but there were perhaps 40 to 50 cases of anxieties, hysterias, etc., in the first 24 hours. We had no special equipment and resorted to brief psychotherapy and narcosynthesis. As the campaign stabilized, better facilities were established by the medical battalion hospital, and when the psychiatric casualties mounted in number we continued our therapy and were able to establish a small rest area, though our facilities and space were very limited. As I now recall, we did not have large numbers of patients, and were able to return many to duty, with evacuation of others as necessary, to the transports for removal to rearward bases.

In New Caledonia where we were billeted later, due to a massive amebic dysentery outbreak in our division, I participated in a course given to troops and officers. This was in the nature of lectures relating to attempted conquest of fear and attitudes in training.

My actual combat duties were limited to these two campaigns. I do not know what I can add to the above account, which may not be at all what you want. In the confusion of combat, and our lack of experience, we did what we could in the best way possible for us. Confinement on a small island, only 8 to 10 square miles in all, profusely caved, heavily populated with nocturnal crablike animals who "clanked" as they moved and rife with insect life, was hard on morale of all. After the island was secured, our facilities improved greatly and much of the apprehension shared by all of us, ameliorated.

38th Infantry Division.—Dr. Jules V. Coleman, psychiatrist (major, MC) of the 38th Infantry Division, working with combat casualties in the forward area during the Luzon Campaign, was able to return 70 percent of his patients directly to duty from the clearing station; an additional 10 percent were brought back to the division after evacuation to a rear area. Therefore, a total of 80 percent returned to duty. Like many other men who worked at forward areas, he noted that, after the first few days of combat, the pressure of patients often caused evacuation for other than psychiatric

reasons, and thus lost soldiers who might have remained valuable. Coleman made one further remark that many men have made after observation of individuals in the Pacific—that it is difficult to screen soldiers in such a way as to eliminate those who might suffer anxiety reactions from combat stress. Coleman wrote, "It is the experience of the writer that combat performance is the only reliable criterion for screening."

Of several hundred soldiers who had been referred to him for psychiatric examination during a period of a year prior to combat, not more than 10 turned up with psychiatric combat reactions. The 38th Division, like the 7th and the 37th, was receptive to psychiatric indoctrination, because of the combination of a knowledgeable commanding general and an exceptional division psychiatrist.

41st Infantry Division.—Even in 1945, Maj. Lloyd D. Harris, MC, joining the 41st Infantry Division as division psychiatrist, on Biak, before its engagements in the invasion of the Southern Philippines, found it necessary once again to indoctrinate the line and medical officers of his division in an attempt to reduce derogatory attitudes toward neuropsychiatric casualties.

93d Infantry Division.—The full story of the Negro soldier in World War II has yet to be written. In the Pacific on Bougainville, Negro units saw combat action. Of the 93d Infantry Division, the 24th Infantry Regiment which had previously been in Efate and later went to Bougainville was mostly used in a garrison capacity, but the 25th RCT (Regimental Combat Team), under Col. (later Brig. Gen.) Everett M. Yon, saw some Bougainville combat.

The division psychiatrist at that time, Capt. George W. W. Little, MC, has been quoted in another place in connection with his interesting report on the state of morale within the 25th RCT. He was succeeded as division psychiatrist by Capt. (later Maj.) Theodore D. Phifer, MC, whose communications to us indicated that, following the cessation of combat, the 93d Infantry Division had only the usual kinds of garrison neurotic problems. He did institute a rather elaborate program of psychiatric education within the division, but the division was not again in combat and there was no chance to see whether this educational effort bore any fruit with regard to lessened psychiatric disease.

31st Infantry Division.—Dr. Joseph E. Wittig has given an excellent summary of the neuropsychiatric service of the 13th General Hospital, the Presbyterian Hospital of Chicago sponsored group. In Finschhafen early in the war, he noted good results from narcosynthesis of combat anxiety reactions, but found it difficult to return men to combat duty. Like others, he learned that the farther the soldier was evacuated from the frontline, the more difficult was duty return. Later, he noted the good results that came from the treatment of casualties immediately after they had taken place.

Dr. Wittig next served on Morotai with the 31st Infantry Division, but

this was not a combat assignment, the operation being one of essentially an occupation. However, the 31st Division was then assigned the Mindanao operation, and Wittig noted that, of the first 400 casualties after the beachhead at Parang, 25 percent were psychiatric. Like many others, he saw catatonic, schizoid types of reactions. In this first combat contact, he was able to return 60 or 70 percent to their units, mostly after rest and reassurance. The 31st Division met severe combat later, and there was a marked increase of combat casualties. He felt that a "covering" type of treatment was capable of returning 60 percent of the men to their outfits, but there was an increasing amount of evacuations.

Later, Wittig served in Japan and found very few psychiatric casualties immediately after the war, except for the usual anxiety reactions, which he thought largely represented men who were not achieving discharge as soon as they had hoped. He was chief of the neuropsychiatric service at the 361st Station Hospital (a specialty hospital mainly used for neuropsychiatry and internal medicine), in Tokyo, at the very end of his service and observed that "there were more constitutional psychopaths in this hospital than I had seen all the time in combat duty." He believed that these mostly were men who were replacements, but there is, of course, also the possibility that, with the cessation of combat, certain character disorders began to appear again clinically.

Return to Combat Duty

Enthusiasm for forward area treatment of combat reactions and the return of treated patients to their units for further combat duty was not universal. Dr. Charles E. Test (formerly major, MC), who served with the 126th Station Hospital at Finschhafen, stated flatly that his personal feeling is that, for combat neuropsychiatric disorders, no amount of rehabilitation or treatment in a neuropsychiatric hospital ever succeeded in return to effective combat duty. Perhaps this was because such cases had been sent too far back from the forward area, and thus, treatment had not been accomplished close enough to combat.

Test believed that the treatment of psychiatric disorders was unsatisfactory in the 1942 and 1943 campaigns in the Southwest Pacific Area. "There was generally prevalent an attitude that neuropsychiatric patients could not be salvaged in the theater and should be evacuated to the U.S. for definitive treatment in the Zone of Interior." Test considered that this feeling was justified, because the great distances between the zone of active combat and the supporting bases in the rear, together with lack of transportation facilities, made it impossible to treat men far forward. Also, all the hospitals were under great pressure to evacuate all men able to travel to make available beds for injured or sick casualties pouring in from the front.

In New Guinea, the frontline hospital fortunate enough to possess a psychiatrist, according to Test, was unable to do more than classify and evacuate the neuropsychiatric casualty. Test noted that neuropsychiatric patients in the Southwest Pacific could possibly receive adequate treatment only at a general hospital, and no general hospitals were in the theater north of Australia until April 1944, when the 47th General Hospital received its first patient in Milne Bay. Test was well aware of the problem, for he noted:

> In psychiatry, successful therapy must be initiated at the earliest possible moment after the diagnosis has been established. It was extremely difficult for medical officers in general hospitals more than 1,000 miles from the fighting front to overcome the resistance in psychiatric patients, engendered by long delays in evacuation, lack of interest in forward hospitals, and other factors. Another difficulty in treating the psychiatric patient in general hospitals arose from their proximity to other patients already boarded and awaiting transportation for return to the U.S.

CHINA-BURMA-INDIA

Our coverage of neuropsychiatry in the China-Burma-India theater is probably the weakest part of this history. We do, however, have some information, and that furnished by Dr. Lidz (p. 773) is of particular significance. Lidz went to Assam in October of 1944 with the 18th General Hospital. This hospital was located near Ledo at Margherita. The 20th General Hospital was there also, and Lidz served on the psychiatric service at that facility. The hospital was established in native huts accommodating 300 to 500 patients and later in tents when the native huts began to disintegrate. In Assam, it was the policy to fly almost all psychiatric casualties to one of the general hospitals in the Ledo area. Good facilities were available for reassignment, and relatively few psychiatric casualties were returned to the United States. This is contrasted with experiences in Fiji, where facilities for reassignment were not available. The situation of the general hospitals in the Ledo area was very favorable, and an active program was carried out.

Dr. Lidz stated that neuropsychiatric patients were not allowed to remain in their wards, but that they participated in an active occupational reconditioning program for most of the day. Morale was fairly good, according to Lidz. It is pertinent particularly to note his statement that the Negro groups on the Ledo Road did an excellent job, better than anyone else, in some respects. They put up with a great deal to which, he felt, that white troops might have objected.

Another major contribution on the China-Burma-India theater was provided by Dr. Werner Tuteur (formerly captain, MC), whose account of the neuropsychiatric department of the 172d General Hospital in Karachi, India, and Kunming and Shanghai, China, is herewith reproduced. We be-

lieve that this is another one of the many documents we have printed in this chapter that gives the real color and feel of neuropsychiatric practice in the Army in faraway lands under somewhat exotic circumstances.

The mission of the 172d General Hospital, hastily organized and equipped in Brigham, Utah, at Bushnell General Hospital during late fall of 1944, was to tend to the sick and wounded to be evacuated through China and India after the invasion of our forces of the Japanese and Japanese-held Chinese mainland. The neuropsychiatric department has been well equipped with manpower, injectable Sodium Amytal, and books. An electroshock machine was to join us "later." It never reached us. When once heard of, after the Japanese-American armistice, it had fallen into the hands of UNRRA [United Nations Relief and Rehabilitation Administration] and was possibly being enjoyed as a toy or a hobby by some mechanically minded Chinese youngster in the western part of that country. This was regrettable because then, long after the armistice and far away from all war heroes, it would have given good use in Shanghai, where we were stationed.

Far be it that we failed our mission; the mission, rather, failed us to the tune of one-million prevented casualties, when the atomic bomb made a land invasion superfluous in the Far East. It so happened that the dropping of the atomic bomb (August 1945) practically coincided with the date on which the 172d began to function as a unit. Eight months had been spent prior to that date in an Odyssey of detached services and special mission to other organizations in the China, Burma, India theater of war.

There are three phases or incidents which deserve historical mentioning in the annals of the NP unit of the 172d.

1. Late in August 1945, liberated prisoners held in Japanese captivity in Mukden, Manchuria, reached us in Kunming on their route of evacuation. Their outstanding hero was Lt. George Barr of the Air Corps, who had participated in the Doolittle Raid over Tokyo in April 1942. He entered our care in an acute state of avitaminosis with fear reaction and confusion. He left us after 3 months, markedly improved * * *.

Many other evacuees went through our department, mostly officers, Dutch, captured in the East Indian islands during the early days of the Japanese onslaught, British and Americans. The latter gave extensive narrations of the Death March of Bataan.

2. Early during October we moved on to Shanghai. While there was complete absence of battle casualties and fighting heroes in our complement of patients, the department entered a new phase of activity, meeting with emotional disturbances hardly described in the textbooks and certainly not predicted by the War Department. By now the department consisted merely of myself as chief, assistant chief, ward officer and consultant to the Theater Surgeon, Maj. Gen. George E. Armstrong, now retired. He in turn was very close to Gen. [Albert C.] Wedemeyer, then commanding general of the theater.

The hospital was comfortably located at Haig Court, a modern apartment building in the Shanghai residential district, with the NP department on the second floor, housing a total of 20 beds. Part of the civilian population was quartered considerably less comfortably. There were still 12,000 European Jews, who had fled Hitler in 1939, housed under the most deplorable, unclean, and psychologically unhealthy conditions in the Hongshew Ghetto, ingeniously copied after German concentration camp design by the Japanese. These destitute inmates needed psychiatric care as much as all other necessities of life. While such care had not been entirely absent, it could now be reinforced by us by active participation in the Ghetto psychiatric clinics and by frequent and intensive "house calls," whenever necessary. The Sodium Amytal interview, designed for battle casualties, found itself applied to civilians and became an important tool in interpreting their intrapersonal and interpersonal difficulties. Not that we acted as saviors,

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but we could be of assistance to the local practitioners and did so whenever possible and feasible.

Homosexuality, this ever-present way of life, particularly where there is concentration of large masses of mankind of the same sex, kept the higher echelon administrators worried. Our department was ordered to their meeting place, a better European-type restaurant, to establish "facts" and make "proper recommendations." But, of course, the caduceus must not be visible on our uniforms lest those under "observation" would become "suspicious" when "approached." The insignia of the field artillery served as a disguise when we frequented the meeting place. The results of our observations were meager, if anything. I merely reported to my commanding officer that I had definite evidence every member of the group was wearing a white Chinese silk scarf as a sign of identification. His reaction: "Darn it, I just bought one yesterday * * *."

There is always a spectacular air surrounding victorious troops and officers entering a community after cessation of hostilities. There were numerous practitioners asking for our assistance with their difficult cases, placing the utmost confidence in our skill which we not always deserved. Nevertheless these practitioners had not seen the cover of a new medical journal for 6 years. The inserted clipping (from the *Shanghai Herald*, Saturday, January 19, 1946) is self-explanatory, the circumstances leading to it almost tragicomical:

"GIRL CRIPPLE IS MADE TO WALK AGAIN BY U.S. ARMY DOCTORS"

By Richard Cushing

A 21-year-old Shanghai girl is back on her feet after spending eight years and nine months in bed, unable to move. She was cured through self-confidence instilled in her by two American Army doctors who knew she could walk if she tried, Associated Press reports.

Until last October, pretty, brown-haired Josephine Krauchine, a White Russian, had little hope of ever walking again. Six mastoid operations when she was 12 years old left her right side temporarily paralyzed. Doctors told her they feared she was doomed to lifetime in bed.

Consult Specialists

But when her physician, Dr. Ted Worden of Shanghai, was released from an internment camp he called in two American physicians to consider her case. They were Capt. Werner Tuteur of Chicago, Ill., and Maj. Frank J. Fogliano of New York City, N.Y., respectively a psychiatrist and an ear-nose-throat man.

"They saw my X-rays and they gave me confidence," Josephine relates eagerly. "They told me there actually was no reason I should have to remain in bed. I just needed the confidence to get on my feet."

On Oct. 19, she was propped up in bed against a pillow. On Nov. 23 she got out of bed for the first time. And now she can walk—with some support—for short periods at a time. She took her first motorcar ride on Dec. 22.

Josephine is lavish in her thanks to the Americans. "If it weren't for them I don't think I could have gone on."

In 1937, this patient underwent a mastoidectomy and the attending surgeon wrote an order on the day of the operation of "strict bed rest." Shortly after the surgeon

and the entire civilian hospital contingent fell into Japanese hands during the Chinese-Japanese conflict. Another contingent of Catholic Sisters took over. They found the order of "strict bed rest" and kept it in force for 8 whole years and 9 months, the patient not having an attending physician for all this time. So we really did not make the young lady "walk again" but felt very pleased that she still could * * *. This kind of publicity soon turned our department into a place of pilgrimage where patients of every conceivable nationality, with every conceivable illness came or were taken, sometimes successfully, sometimes without improvement.

A common preoccupation and complaint found among the heterosexual segment of our uniformed outpatients, especially officers, was impotence with the mistress, concomitant with fear of impotence with the wife expecting them in the States. (The war was *really* over by then * * *.) Shanghai for many decades had been the Far Eastern center of attractive white womanhood. The reaction of our "sex starved" men in uniform to them was adequate, to say the least, but laden with guilt.

3. The highlight of our activity began with Easter Sunday, 1946, when Seaman 2d Class William Vincent Smith murdered nine of his shipmates while stationed on an LST in the vicinity of Shanghai. We were "borrowed" by the Navy who was without psychiatrists in Shanghai waters and commanded to the hospital ship *Repose*. His case, which ended in suicide at Bethesda, was years later published by George N. Raines (Suicide, Basic Considerations, The Institute of Living, February 1950). Tragic as it was, it created an admirably friendly relationship between Army and Navy.

With my return home during August 1946, the 1-year existence of the department came to an end.

Thus were the activities of the NP department of the 172d. We did not help win the war, as a matter of fact, we did not begin to function till the war was over in our part of the world. But we certainly felt needed and did our share to help those given into our care in uniform and without.

Part IV

OTHER THEATERS

CHAPTER XXI

The Middle East Theater

John M. Flumerfelt, M.D.

LOCALE AND FUNCTIONS

A history of neuropsychiatry in the Middle East theater during World War II would be lacking in authentic "color" if no mention were made of the great variety of nationalities, languages, and cultures; of the geography and climate; and of the types of military duty encompassed by what was, in the beginning, USAFIME (U.S. Army Forces in the Middle East).

Headquarters, USAFIME, was in Cairo, Egypt. To the north, American personnel were stationed in Palestine (now Israel), Syria, and Lebanon. To the south, Americans served in SOS (Services of Supply) in Eritrea and west across Central Africa to the Atlantic Ocean in Accra, Dakar, and Liberia. The scope of American activity extended east to Arabia and Persia. To the west, the theater included Libya and Tripolitania and, later in the war, Tunisia, Algeria, and French Morocco (map 34).

During the desert battles waged westward by the British Eighth Army in 1942 and 1943, from El 'Alamein to Libya, most of the American battle casualties were incurred by the Ninth U.S. Air Force. This unit, along with the British Royal Air Force, supported Lt. Gen. (later Field Marshal) Sir Bernard L. Montgomery's Eighth Army, both by tactical assistance to ground troops and by strategic, long-range bombing missions fanned out across the Mediterranean Sea and the Aegean Sea to Crete, to the Balkans, to Romania and its Ploesti oilfields, and to Tunisia, Sicily, and Italy.

U.S. Army medical personnel also provided care to Ordnance, Engineer, Quartermaster, and other American SOS troops, including the very active harbor groups at Suez, Port Said, and Alexandria, in Egypt. In addition to Army personnel were those of the Navy, merchant marine, American Red Cross, diplomatic corps, and other U.S. citizens who participated in the war effort. All of these became the medical responsibility of the U.S. Army Medical Department in the Middle East theater. Psychiatric casualties began to appear from all areas.

The administrative core for medical service was the Office of the Theater Surgeon, in Cairo. When U.S. medical personnel began to arrive in the Middle East in considerable numbers, in November 1942, Col. Crawford F. Sams, MC, was the theater surgeon. Col. Eugene W. Billick, MC, replaced

MAP 34.—U.S. Army hospitals in the Middle East, 1 July 1943.

Colonel Sams in early 1944 and served as the chief surgeon for the theater until the end of the war.

The theater was divided into service commands. The medical service in each was supervised by a command surgeon. Within the service commands were various hospitals and dispensaries.

From November 1942 until early 1944, Lt. Col. (later Col.) Baldwin L. Keyes, MC, was the neuropsychiatric consultant assigned to theater headquarters. Colonel Keyes was a professor of psychiatry at the Jefferson Medical College of Philadelphia. He had organized the 38th General Hospital which was made up of medical officers on Reserve status, who were civilian physicians of the Jefferson Medical College Hospital. When the 38th General Hospital was ordered to active duty on 15 May 1942, Colonel Keyes was granted a leave of absence from his civilian post and was made executive officer of that hospital. Upon his arrival in the Middle East, he was also made consultant in neuropsychiatry to the chief surgeon. Colonel Keyes was admirably suited for this responsibility because, in addition to considerable civilian status as a neuropsychiatrist, he had long experience in World War I, serving first with British and later with American medical forces.

Under his direction were the other psychiatrists of the 38th General Hospital, which was located 15 kilometers east of Cairo in the Delta Service Command, on the post of Camp Russell B. Huckstep. Capt. (later Maj.) James J. Ryan, MC, was chief of the neuropsychiatric section of the hospital from the time of its activation until July 1943, when he returned to duty in the United States. Captain Ryan was assisted by Capt. Nicholas F. Vincent, MC, in neurology, and by Capt. (later Maj.) John M. Flumerfelt, MC, and Capt. John T. Delehanty, MC, in psychiatry.

As the only general hospital in the Middle East, the 38th received patients in transfer from dispensaries, field hospitals, and station hospitals for treatment and for return to the Zone of Interior, when necessary. Patients were transported to this hospital by air, almost exclusively, from all parts of the theater except a few stations in Central and West Africa, which, instead, utilized the station hospitals at Accra and Dakar. The psychiatrists at the 38th General Hospital had an unusual opportunity to study, treat, and make disposition of patients from a great variety of situations encompassed by the great Middle East area.

Capts. A. Allan Cott, MC, and Sheldon Koff, MC, and other medical officers referred patients from the Persian Gulf Service Command before that region was made a theater. In Palestine, the 24th Station Hospital, with Capt. Thomas A. Naclerio, MC, as the psychiatrist, functioned as a convalescent facility until it was transferred to India in January 1944. Capt. Irving Bieber, MC, psychiatrist, served first with the 15th Field Hospital, in Libya, then with the 38th General Hospital, in Cairo, until he, too, was transferred to India in January 1944.

The psychiatrists mentioned had more or less contact with and direction from Colonel Keyes in their clinical work; but others, such as Capt. Sidney U. Wenger, MC, of the 67th Station Hospital in Accra, were "on their own" because of difficulties in maintaining liaison with Colonel Keyes.

ALLIED MEDICAL RELATIONS

Shortly after the arrival of U.S. Army medical officers in the Middle East, a close and friendly working relationship was possible with their "opposite numbers" in the British medical services. Colonel Keyes of the United States and Brigadier G. W. B. James, the neuropsychiatric consultant for the British Middle East Forces, inaugurated the liaison between the two groups.

American neuropsychiatric personnel visited British installations, which had a long and extensive neuropsychiatric experience to offer, and British medical officers visited the American installations. In early 1943, Brigadier Robert F. Barbour who had been a student of Dr. Adolf Meyer at Johns Hopkins University School of Medicine, Baltimore, Md., succeeded Brigadier James as the neuropsychiatric consultant to the British Middle

East Forces. The social and professional interchange which had started became a regular event when Brigadier Barbour initiated regular monthly meetings for all Allied neuropsychiatric officers who were in the area. The meetings were held in various British hospitals and at the American 38th General Hospital, with a morning session of scientific papers, luncheon with the staff of the host hospital, an afternoon of organized discussion, and evening with dinner and an informal exchange of experiences. The meetings offered an opportunity for the American psychiatrists to meet and talk with the British psychiatrists who, at this time, were the leaders in combat psychiatry.

Allied neuropsychiatric personnel were received also by the Egyptian civilian psychiatrists and hospitals. The Americans visited the neuropsychiatric service of the Egyptian Kasr-El-Ani Hospital in Cairo, the Egyptian state mental hospitals, and the private mental hospital operated by Oxford-educated Dr. Benjamin Behman, who was most helpful in orienting the Allied psychiatrists to local problems and the methods which had been evolved to combat them. Dr. Marcus Gregory, originally a Coptic priest, then educated further in England to become a lay psychoanalyst, also welcomed and aided Allied neuropsychiatric officers in their efforts.

In return, Colonel Keyes delivered a series of lectures at the American University in Cairo on psychiatric subjects, on problems of adjustment between armies and civilian groups, and on other social problems consequent to abnormal situations existing in wartime.

UTILIZATION OF PSYCHIATRISTS

The 38th General Hospital was the only medical installation in the theater with psychiatric facilities to offer definitive treatment for mental disorders. For this reason, disturbed psychiatric patients were transferred to the 38th General Hospital from posts 1,000 or more miles distant.

Not all station or field hospitals had a psychiatrist. When assigned to a field hospital that was divided into as many as three platoons, all widely separated geographically, the psychiatrist was limited to functioning in one area. When this was the case, the medical demands made upon the platoon sometimes forced the psychiatrist to serve as a general medical ward officer, thus limiting his neuropsychiatric work to consultation and recommendation for transfer to the 38th General Hospital of all but the more simple maladjustments. Actually, the same functions could have been performed by an internist, thus freeing the psychiatrist for better use of his training. On this basis, Captain Bieber of the 15th Field Hospital was transferred to the neuropsychiatric section of the 38th General Hospital. As the war went on, specialist personnel were used in a more efficient manner, but progress seemed slow.

PERSONNEL

Nurses.—Few of the nursing personnel had had any previous experience with neuropsychiatric patients. The 38th General Hospital had two nurses with some previous experience: Lt. (later Capt.) Dorothe M. Brede had worked in a State mental hospital, and Lt. Madaline L. Kinch had spent several months working in a private mental hospital while in training. Hospital nursing policy provided for periodic rotation of nurses between services and sections. In the interest of training nursing personnel to cope with neuropsychiatric problems, it was necessary to ask for an exception to the policy of rotation. This was granted to the extent that a "hard core" of nurses who had acquired some experience and on-the-job training were permitted to remain in the neuropsychiatric section. Among these were Lt. (later Capt.) Miriam L. Brunner and Lts. Mildred G. Greenlee, Beatrice A. Roemer, Louise M. Behn, Nancy S. Habecker, and Madaline L. Kinch.

Enlisted men.—Among the 500 enlisted men assigned to the 38th General Hospital were two who had previous experience in mental hospitals. Technician, third grade, Patkowski and Sergeant Thomas headed and helped to train a staff of wardmen for the neuropsychiatric section. The neuropsychiatric section was not always so fortunate in its enlisted duty personnel for, initially, it seemed to be the policy of hospital administration to assign detachment "misfits" to that section.

PHYSICAL FACILITIES

At the time when experienced personnel were lacking, there was also a deficiency in the physical facilities for accommodation and treatment of the mentally sick. The first hospital ward to accept neuropsychiatric patients opened on 15 November 1942, with Captain Flumerfelt as ward officer. The building was of the W–1 type, actually an open ward with two rows of beds. Even the minimum security features necessary for the care of homicidal and suicidal patients were lacking. Further, mental patients admitted to the ward included just such disturbed psychoses who were "bedded down" with patients who had medical illness or were convalescing from surgery. Both the physical structure and the personnel were taxed to cope with such a patient assortment, and it was necessary to augment the staff of wardmen to prevent the escape of, or to pursue, psychotic patients. The wardmen discharged these duties very well, considering that almost all had had no previous experience in the work. Their morale and willingness to engage in the desert pursuit of escaped psychotic patients rose markedly when the quartermaster provided a jeep for the "roundups."

At first, there were no seclusion rooms or restraints for psychotic patients; shock therapy was not yet authorized; and chemical restraint existed only in the form of oral medication, which disturbed patients would

often refuse. Not only was hydrotherapy out of the question, but hot water for bathing purposes was also scanty. It was obtained by heating in large tin cans over the portable kerosene stoves that comprised the heating system for the ward in cold weather. Although desert regions are considered very hot, as indeed they are in summer season, they can be uncomfortably cold in the winter months—at least they were for American personnel who were accustomed to central heating. In any case, the ward heaters with their steaming cans of boiling water presented still another hazard to proper care. Nevertheless, despite all obstacles, and by dint of close supervision and no little luck, there were no serious injuries or accidents.[1]

Other priorities and a shortage of building materials delayed the construction of new wards for 4½ months while the neuropsychiatric section literally "sweated it out" after Lt. Col. Burgess L. Gordon, MC, chief of the medical service, gave permission to accept only neuropsychiatric cases on the neuropsychiatric ward.

In March 1943, the neuropsychiatric section moved into two closed wards and one open ward. This was a great step forward, but the closed wards proved to be less secure than had been hoped. The first patient admitted to the closed ward was a burly merchant seaman with manic psychosis. Very promptly, he broke down the doors of the ward and had to be removed to the post guardhouse while the contractor installed better facilities.

Gradually, the closed wards became really secure, restraints arrived, and intravenous sedation was obtained. In the summer of 1944, permission was obtained to purchase an electroshock machine on reverse lend-lease from British sources. Wetpack therapy became possible, and hot water and air-conditioning systems were installed in the wards.

ATTITUDES TOWARD PSYCHIATRY

Progress occurred, but not without difficulty. The usual prejudices with regard to psychiatric patients were present, sometimes even in higher echelons, where the negative attitudes ranged from a passive tolerance to an open antagonism and a wish that all matters psychiatric be kept on a "hush-hush" level. Occasionally, it seemed that line officers had a better understanding and a more humane approach to neuropsychiatric disorders than was the case with the psychiatrists' medical colleagues. Often, feeling was quite strong that all except the most blatant psychotics were "goldbricking" and deliberately attempting to deceive so that they could be "boarded" back to the States. In such situations, where everyone feels the

[1] It is noteworthy that the current modern hospital treatment of psychoses is accomplished on "open" wards with little restraint or seclusion, much like that herein described and also without serious mishap. Thus, physical facilities and treatment milieu of 38th General Hospital were, inadvertently, in advance of the times.—A. J. G.

effects of displacement from home and loved ones, psychiatric patients may be the objects of suspicion and animosity, as well may be the medical officers who recommend disposition to the Zone of Interior.

There is little doubt that the attitudes toward neuropsychiatric problems improved toward the end of the war; this was so in other theaters as well. Improvement began especially after Col. (later Brig. Gen.) William C. Menninger, MC, became chief of the Neuropsychiatry Consultants Division of the Surgeon General's Office. Colonel Menninger made his influence felt by way of channels and by his direct communication with neuropsychiatric officers both in the Zone of Interior and overseas.

Also, a great deal depended upon the ability of psychiatrists to keep their balance and perspective—a task made difficult by their own problems of adjustment and by finding themselves the object of prejudiced attitudes. Some had a tendency, at first, to overidentify with patients and to be too lenient, which perhaps confirmed some of the suspicion that the psychiatric patients were merely successful "gold-brickers." Elsewhere, psychiatrists were known to have leaned in the opposite direction so that patients were submitted to grueling procedures in order that they would be "stimulated" to find a return to duty more pleasant than being ill. Obviously, neither extreme was desirable, and as everyone gained experience and perspective, reasonable practices and procedures were utilized.

Col. Harry A. Clark, commanding officer of the Delta Service Command, was most helpful. He backed the recommendations of Colonel Keyes and personally referred a number of his officers to psychiatrists on the post for advice in management of difficult personnel problems. Col. Hall G. Van Vlack, MC, commanding officer of the 38th General Hospital, had a similar attitude, with equally beneficial results for the neuropsychiatric work under his jurisdiction.

As a consequence of such assistance from higher echelons, psychiatrists had an opportunity to influence policies relative to morale as initiated by line personnel, which in turn helped to diminish the incidence of neuropsychiatric disorders. Colonel Keyes, in his dual capacity as consultant in neuropsychiatry and as a service command surgeon, helped in the selection of leave areas, in the control of recreation centers, and in the improvement of living facilities. In the program, Colonel Keyes shared credit with others of Special Services, with the chaplains, and with members of the American Red Cross. The morale "team" made recommendations to appropriate headquarters, which in turn cooperated to make the efforts successful. Before Colonel Keyes returned to the Zone of Interior in early 1944, he made a survey of conditions in Eritrea, Anglo-Egyptian Sudan, French Equatorial Africa, South West Africa, Liberia, and Senegal at the request of the Surgeon General's Office, via channels, for information, in particular, on neuropsychiatric conditions. Colonel Keyes made suggestions for improvements locally and through channels. One of the most popular and seem-

ingly helpful of these was the rotation of personnel from isolated posts in very hot regions to more pleasant stations.

PSYCHIATRIC TESTIMONY IN COURTS-MARTIAL

The Adjutant General's Department of the theater made increasing use of psychiatrists for performing examinations of offenders and prisoners and for serving as expert witnesses at courts-martial. Eventually, it was found to be good policy to obtain a psychiatric examination on all defendants before general courts-martial. But in military as in civilian medicolegal practice, psychiatrists were handicapped by a lack of uniform procedure for testifying as expert witnesses. Time brought a mutual increase in understanding with courts and legal counsel. Such mistakes as overprotection for the accused who exhibited some degree of psychiatric disability cost the psychiatrists some of their prestige in the beginning; however, the later relinquishment of idealistic attitudes in favor of time-tested legal yardsticks for the determination of mental responsibility made psychiatric testimony more effective.

TRANSPORTATION OF PATIENTS

Before considerable U.S. Army personnel arrived in the Middle East in the fall of 1942, psychiatric casualties among Americans in and out of the military service were cared for in the facilities of the Royal Army Medical Corps. When the 38th General Hospital arrived in the Middle East, U.S. patients were received by transfer from the British hospitals. Despite the generally excellent care provided by their Allies, U.S. personnel were happy to be back among their countrymen.

Transportation of patients to and from the 38th General Hospital became an important concern of psychiatrists. Transportation to the hospital was almost exclusively by air, over distances ranging from hundreds to thousands of miles. No accidents or other unfortunate happenings occurred as a consequence of the air transport of mental patients to the hospital. Occasionally, casualties arrived by American or British vessels which put in at Suez or Port Said or Alexandria. A few came by ambulance or train when the referring dispensary or hospital was nearby.

Evacuation of patients to the Zone of Interior posed a much greater problem, especially in the early part of USAFIME's existence. No U.S. hospital ships were available. Occasional American freighters returning to the United States after discharging cargo at an Egyptian port could take for shipment a small number of ambulatory psychiatric patients. One freighter had a few severely psychoneurotic casualties aboard, along with a number of American civilian construction workers—"boomers" who had been in the Middle East erecting oil refineries. According to personal com-

munication from one of the psychiatric patients, the ship's captain allowed the oilmen freedom of the decks but kept the few psychiatric patients below because he thought they were "gold-brickers" who deserved no privileges. But apparently, the "boomers" had among them a number of alcoholics and antisocial characters who promptly made difficulties aboard ship. Perhaps the psychiatric patient exaggerated, but he asserted that toward the end of the voyage the "boomers" were below decks and the psychiatric patients were topside! Wartime has its own brand of wry humor.

Freighters could not transport psychotic patients. Consequently, those patients accumulated on the wards of the 38th General Hospital, awaiting transportation for many months, until an occasional U.S. troop transport, equipped with sickbays and medical personnel, arrived at an Egyptian port. On one occasion, Brigadier Barbour, the British neuropsychiatric consultant, was able to secure transportation for U.S. Army patients to North African ports, thence to England from where they were transshipped to U.S. vessels returning to the United States.

By 1944, Air Transport Command routes were established across Africa for supply of the China-Burma-India theater, particularly for ferrying supplies from India over the "Hump" into China. The many returning aircraft had room for patients and others who were to be returned to the Zone of Interior. In the beginning of air evacuation of medical cases, it was feared that disturbed mental patients on aircraft could cause serious difficulty. Attendant medical personnel aboard the airplanes had to be trained in the care of resistive, assaultive, suicidal, and acutely anxious casualties while en route.

To facilitate air evacuation, mental patients were divided into four categories, according to the severity of illness and consequent potential hazard involved. Class "A" category was assigned to patients who required constant personal supervision and mechanical or chemical restraint or both. Only one class "A" patient was taken on a planeload of other patients. Class "B" patients, who required only group supervision, were taken two at a time in an airplane. Class "C" patients were those who needed no supervision but who might require sedation en route. These and class "D" patients, who would need no medical care en route, were sent three to a planeload. In the usual planeload of 27 patients, six mental patients could be included. One flight nurse and two enlisted men attendants cared for the patients en route.

Air evacuation worked admirably, and there were no serious mishaps as a result of evacuating mental casualties by air. When a class "A" patient had to be transported in litter restraint, bedpan and urinal were provided. At stops along the route, or during layovers because of weather, and during changeovers from one plane to another, patients were sometimes held overnight or longer, and the care of disturbed patients was made more complicated. In the evacuation of 200 psychotic patients, there were two

minor mishaps. On one occasion, a paranoid, assaultive patient managed to persuade a flight surgeon to let him out of physical restraint, and he attacked his liberator and others who then had to overwhelm him by force. In another instance, an inexperienced flight attendant removed the canvas litter restraint from an excited catatonic schizophrenic patient during a stopover in Bermuda; the patient escaped his custodians temporarily and caused some consternation until he was recaptured.

DISPOSITION OF NONEFFECTIVE PERSONNEL

The disposition of noneffectives produced problems insofar as the involvement of the medical services was concerned. Noneffectives included soldiers who were not considered mentally ill but, for a variety of behavioral reasons, were found to be unsuitable for military service. Medical evacuation of such personnel was the easiest means of solving the problem, so far as line officers were concerned, because the prescribed administrative means of disposition were exacting and complicated. Consequently, there was some tendency to take advantage of medical channels for this purpose. Understandably, attempts to do so were unavoidable because unit commanders and their dispensary surgeons were apt to succumb, sooner or later, to the repeated medical and disciplinary problems posed by the alcoholic, mentally defective, homosexual, or sociopathic personnel. Transfer to a hospital was a tempting way out for all concerned. But in the hospital, the noneffective was an added burden. He contributed nothing to the Army's work while he was hospitalized, and his presence among the sick tended to lower their morale. If the noneffective was evacuated to the Zone of Interior via medical channels, his evacuation was resented by other patients, and the hospital was likely to become known as the easy way to return to the United States.

In the beginning, there was a difference of opinion between line authority, who was responsible for administrative disposition, and the medical disposition board of the hospital. This conflict occurred when patients sent to the hospital for medical evacuation were returned to their units for administrative disposition. The silver lining to all of this was that eventually proper administrative boards were established. The best argument for this resolution of the problem was that, if the noneffective soldier were evacuated via medical channels, it would be almost impossible for an administrative board in the Zone of Interior to process such a discharge when details and witnesses to prove noneffectiveness remained overseas.

However, psychiatrists did appear before the administrative boards as medical witnesses, chiefly for the purpose of assuring the board that the disorder did not constitute a medical disability and that administrative disposition was appropriate. Because administrative boards were seldom composed of the same officers, the psychiatrist, paradoxically enough, often

served as a coach who helped the board to orient its members to noneffective problems and to the administrative means for their solution. In time, this orientation became unnecessary, as the line officers became more accustomed to the use of the procedure.

ADMISSION OF PSYCHIATRIC PATIENTS TO HOSPITAL

In 1944, Major Flumerfelt, then chief of the neuropsychiatric section of the 38th General Hospital and consultant in neuropsychiatry to the theater surgeon, helped inaugurate a policy whereby only psychotic patients, psychiatric emergencies, and casualties coming from a great distance were admitted to the hospital as inpatients. Otherwise, before being admitted to the hospital, the referred psychiatric patient was seen in outpatient consultation. At that time, pertinent statements from the patient's commanding officer and dispensary surgeon were at hand, having been forwarded in advance of the consultation. This policy resulted in a marked improvement in the selection of patients admitted to the hospital, and a corresponding diminution in the development of iatrogenic disorders or "hospitalitis" and evacuation "fever." In any case, the new admission policy had much to do with the correction of the previously discussed difficulties in the disposition of the noneffective soldier.

RELATION OF MORALE TO NEUROPSYCHIATRIC ADMISSIONS

When a rotation plan of return to the Zone of Interior after 2 years' duty in the theater was publicized in early 1944, there was an increase in the hope of eligible personnel that they might benefit. The hope was short lived when the new theater commanding general made it clear that the rotation plan of his predecessor did not have his backing. The effect on morale was apparent at once. It would have been better if the rotation plan had never been announced. The elevation and then the dashing of hopes of being sent home provided an unhappy "one-two punch" which lowered morale. The rescinding of the rotation policy was made known in March 1944. Between April and May 1944, the neuropsychiatric hospital admission rate climbed from 23 per 1,000 to 30 per 1,000, and by July, it was 31 per 1,000. For the most part, the severely affected personnel were those who had been making a borderline adjustment to begin with.

When rotation was again proposed later in 1944, there was considerable skepticism because of the earlier disappointment. Late in 1944, Major Flumerfelt, after discussion with and concurrence on the part of the theater surgeon, conferred with G–1 (personnel) on the need for clarification of rotation policy. However, attempts to clarify such policy and to augment speed of rotation were only partially successful. Again, plans were announced, and again, they were not implemented. Neuropsychiatric hospital

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admissions once more increased—from 18 per 1,000 in November 1944 to 26 per 1,000 in December 1944.

With V-E Day in May 1945, as in the European and Mediterranean theaters, a point system was established for return of personnel to the United States. As it turned out, the point system actually meant that fewer could count on an early return to the Zone of Interior. However, this disappointment seemed to be offset by the encouraging aspects of the victory in Europe and by the knowledge that low-point personnel were to be redeployed promptly to the Pacific theater. Perhaps these "antidotes" to the disappointment, occasioned by the inauguration of the point system, accounted for the fact that there was, this time, no rise in the rate of neuropsychiatric admissions.

Inevitably, the psychiatrist had to consider morale as one of the causative factors in neuropsychiatric breakdown. In this respect, the psychiatrist's knowledge was actually somewhat akin to that of G–1. Psychiatrists came to know which of the units had high and which had low morale. In one instance, the notably punitive attitude of a commanding officer toward his men came to the attention of G–1. The Inspector General then visited the unit, but the all too familiar procedure resulted whereby "undesirable" personnel were transferred from this station to another which was less favored or desirable in many respects. To some of the men remaining, it seemed that those who had been transferred were simply "scapegoats" who were punished instead of the commanding officer who did not have the confidence of his men.

PROFESSIONAL PROBLEMS

It is difficult to say where administrative problems ended and professional or clinical problems began. In the Middle East, a zone of communications with few battle casualties, neuropsychiatric practice related more closely to civilian rather than combat psychiatry. Actually, if psychiatry had any unique contribution to offer in such a zone of communications, it would be in the preventive measures which are related to morale factors.[2]

Of the clinical aids in therapy, electroshock treatment was outstanding in ameliorating depressions and in easing the manifestations of acutely disturbed schizophrenia and mania.

The use of insulin coma therapy was impractical because of the complicated nature of such treatment. Smaller doses of insulin were of some value to promote appetite and weight gain; in somewhat larger doses intramuscularly, it helped to speed recovery from delirium tremens.

The neuroses posed a more difficult treatment problem. The secondary

[2] In 1945, Major Flumerfelt wrote an article, "Morale Factors in Overseas Non-Combat Service," which appeared in the March 1945 issue of the *Military Surgeon;* later, it was published as a monograph by the Josiah Macy, Jr. Foundation.—A. J. G.

gain offered by neurotic symptoms was great, particularly the possibility of return to the Zone of Interior. Neurotic patients simply did not do well when hospitalized, especially if other patients had "passed" the disposition board and were awaiting return to the United States. Another difficulty arose when other medical officers diagnosed neurosis by exclusion. The extensive physical studies entailed in such diagnostic procedures helped to "fix" if not actually to originate, somatic symptoms.

One reward for the psychiatrist's proving his ability to diagnose neuroses positively, instead of by exclusion, was that he became "swamped" with consultation requests. Paradoxically, it often fell to the lot of the psychiatrist to diagnose organic disease in instances where physical studies had not been so thorough because a neurosis had been suspected.

As previously stated, more effective than any psychotherapeutic treatment for neuroses was the administrative policy adopted whereby, whenever possible, psychiatric patients were examined, before admission, on an outpatient basis. Before this policy, the neuropsychiatric hospital admission rate had varied between 20 to 31 per 1,000 per annum. After outpatient screening was initiated, the admission rate was never greater than 15 per 1,000 and, on one occasion, was as low as 8 per 1,000. Correspondingly, there was a reduction of more than 50 percent in the number of psychoneurotic patients presented to the 38th General Hospital disposition board.

Unless a soldier was so incapacitated by neurosis that he was wholly unfit to perform any duty, it was found to be better for him, and for the Army, if he was kept out of a hospital environment and, instead, continued as a soldier in uniform, with some disciplinary and duty demands made upon him.[3] In hospital, also, patients frequently regressed to the infantile attitudes in relation to authoritative figures and to "sibling" patients.

With the improvement described, psychiatrists had more time and energy to devote to individual and group treatment. Practically all soldiers with neurotic disorders had shown some evidence of neurosis, antedating military service. Therefore, the practical and, indeed, the only possible objective of therapy was to restore the soldier to his best possible level of functioning and to make clear to him that he was expected to do something for his country in the service. Treatment, accordingly, had more to do with ameliorating the soldier's responses to immediate situational problems than with attempting a cure of longstanding neurotic difficulty. An analytic, probing type of therapy did not fit the situation. The more simple therapeutic measures of reassurance, suggestion, and other supportive devices worked much better. Nevertheless, a psychoanalytic orientation and, preferably, training enabled the psychiatric medical officer to appreciate the problems more clearly. For instance, anxieties that were due to stimulation

[3] Col. Albert J. Glass, MC, Editor for Neuropsychiatry, came to this same opinion independently in the Korean War when, as theater consultant in neuropsychiatry, he had convalescent psychiatric patients in detachments along with other convalescent medical and surgical patients.

of unconscious homosexual drives could be recognized and sometimes relieved by situational changes that did not require direct therapeutic dealing with the underlying problem, which dealing could, instead, have resulted in disturbing the soldier concerned and in arousing the prejudices of those about him. The psychoanalytically oriented medical officer was, in this and in other instances, in a better position to know what not to do in view of all the circumstances concerned. Having analyzed such problems in civilian life, he was in a better position to judge whether an "uncovering" type of therapy, if at all possible, would enable the soldier to perform his duties more efficiently.

Three possible methods existed for dealing with the homosexual soldier:

1. Administrative discharge.—If the homosexuality was overt and the soldier could not or would not curtail or conceal his sexual activities, he was brought before an administrative board convened under AR's 615–368 and 615–369 and in accord with WD Circular No. 3, dated 3 January 1944.

2. Retention in the service or evacuation.—If an unconscious homosexuality existed and neurotic symptoms developed, the majority of soldiers with such a problem were retained in the service; the minority were "boarded" out of the theater.

3. Hospitalization before transfer.—An especially difficult problem was posed by the officer homosexual who sometimes acted overtly only when under the influence of alcohol. Usually, the officer was sent to the hospital where he was not apt to be frank about his problem. Nor was it easy to obtain information about him from his fellow officers. The consequence was a medical and administrative impasse which was resolved by higher authority transferring the man in question out of the theater.

Alcoholism was another difficult problem. There was often doubt whether a "drunk" belonged in the local guardhouse or in the hospital, where possible intracranial injuries, for example, could be detected. A compromise solution was reached when one of the neuropsychiatric closed wards was assigned to care for such problem personnel. Acute alcoholics were admitted to this ward and then transferred to the guardhouse if no medical disorder existed. This was in accord with Army policy that regarded alcoholism as misbehavior rather than illness. Perhaps it was just as well, for otherwise the treatment and disposition of alcoholics via medical channels would have been at least as difficult a professional problem as was the case with neurotic patients.

In conclusion, it may be said that psychiatric practice under the aforestated circumstances was forced to rely to a great extent upon the development of administrative policies so that only certain carefully screened individuals were hospitalized either for specific treatment or for disposition to the Zone of Interior. It is difficult to ascertain whether soldiers treated

on an outpatient basis improved more as a consequence of the psychotherapeutic sessions or because the outpatient status, free of the hospital atmosphere, facilitated an uncomplicated recovery from disturbing situational factors. Perhaps this was the greatest lesson learned in the neuropsychiatric work in the Middle East in World War II: That neuroses could not be treated in "depth" as in civilian life, and that hospitalization was of value only to those neurotic casualties who were wholly unable to perform duty and who were admitted after previous neuropsychiatric consultation specifically for the purpose of being presented to the hospital disposition board.

FINAL DAYS

V–E Day found the Africa-Middle East theater still very busy. Although the battles of the Western Desert were long past, American combat troops had left Africa for Italy and France, and the Ninth Air Force had moved from Egypt to England, a steady growth continued in the flow of personnel and supplies by air from the United States across the Atlantic and then across Africa to the China-Burma-India theater.

During this period, Colonel Billick was chief surgeon of the Africa-Middle East theater. Lt. Col. Robert B. Nye, MC, Lt. Col. George W. Paschal, Jr., MC, and Major Flumerfelt were his consultants in medicine, surgery, and neuropsychiatry, respectively. Colonel Nye had succeeded Colonel Gordon as chief of the medical service of the 38th General Hospital. In that capacity, he befriended the neuropsychiatric section, which was a part of the medical service, and gave it his support whenever necessary. Together with Colonel Paschal, he was instrumental in formulating policies of the hospital disposition board and in organizing professional meetings for the hospital staff. These activities helped maintain a high level of medical and surgical proficiency, which, with the added support of the nursing personnel and wardmen, won for the 38th General Hospital the Meritorious Unit Service Award.

In July 1945, Major Flumerfelt was returned to the Zone of Interior where he became chief of the Professional Supervision Section, Neuropsychiatry Consultants Division, Surgeon General's Office.

With V–J Day and the rapid closing off of transport between the Zone of Interior and the China-Burma-India theater, the Africa-Middle East theater began to shrink insofar as need for personnel was concerned. The 38th General Hospital staff was divided, with one-half remaining at Camp Russell B. Huckstep, and the other transported to Casablanca where, as a station hospital, it assisted in the evacuation of personnel from the European theater and Africa. By the late fall of 1945, practically all personnel had been returned from Africa to the United States. They had served well.

STATISTICS

The statistical data [4] presented show the personnel evacuated to the United States. The manner in which the statistics were reported needs some clarification. Table 75 refers to the neuropsychiatric patients evacuated to the United States. These patients represent admissions after screening by outpatient psychiatric consultation and also include admissions from other sources. Yet the 38th General Hospital and the 56th Station Hospital returned approximately 59 percent of such admissions to duty. Those that remained were evacuated. Therefore, the high percentage of psychoses (25 percent) becomes obvious. Table 76 shows that more patients were evacuated for neuropsychiatric reasons than for any other cause. If the psychiatric and neurological cases were combined, the total would have been 33 percent.

TABLE 75.—*Neuropsychiatric patients evacuated to the United States from the Middle East, 1 July 1942–1 July 1944*

Diagnosis	Number of patients	Percent
Neurological disease:		
Epilepsy	20	1.17
Neuralgia	2	.12
Neuritis	11	.64
Poliomyelitis	10	.58
Sciatica	19	1.11
Miscellaneous	21	1.23
Total	83	4.85
Psychiatric disease:		
Mental deficiency	47	2.75
Neurosis	235	13.72
Psychosis	121	7.07
Dementia praecox	(64)	(3.74)
Manic-depressive	(19)	(1.11)
Miscellaneous	(38)	(2.22)
Psychoneurosis	62	3.62
Miscellaneous	17	.99
Total	482	28.15
Total neuropsychiatric disease	565	33.00

NOTE.—Figures in parentheses are subtotals.

[4] Essential Technical Medical Data Reports, Middle East theater, for March, July, and August 1944.

TABLE 76.—*Ten leading causes for return of personnel to the United States from the Middle East, 1 July 1942–1 January 1944*

Cause	Number of cases	Percent
Psychiatric disease	361	27.39
Battle casualty	135	10.24
Accidents	132	10.02
Intestinal disease	104	7.89
Musculoskeletal disease	102	7.74
Allergic conditions	74	5.61
Neurological disease	65	4.93
Cardiovascular disease	57	4.32
Tuberculosis	38	2.88
Cutaneous disease	34	2.58
Total	1,102	83.61
All others	216	16.39
Grand total	1,318	100.00

CHAPTER XXII

China-Burma-India Theater

Colonel Donald B. Peterson, MC, USA (Ret.)

Section I. Introduction

GENERAL CONSIDERATIONS [1]

Five days before the War Department reorganization of 9 March 1942, Lt. Gen. (later Gen.) Joseph W. Stilwell established a headquarters in Chungking, China, which was thenceforth to be called the China-Burma-India theater.[2]

The difficulties for the Medical Department, caused by the 9 March War Department reorganization, particularly in the limited authority allowed The Surgeon General to discharge his responsibilities have been fully described elsewhere.[3] The effect was, of course, worldwide, and The Surgeon General was in no position to provide prompt and effective guidance and relief for the problems encountered by any theater surgeon. Within CBI (China-Burma-India) theater, the Medical Department was deficient in personnel, central authority, specialists, staff consultants, rank, and policy.

Not until 28 January 1945, after 3 years of theater operation were consultants in internal medicine and neuropsychiatry assigned to the theater. They visited the medical installations together to the mutual advantage of both medicine and neuropsychiatry. At this point, theater medical policy and appropriate assignment of specialist personnel became possible.

The entire medical effort (map 35) in the CBI was in support of the ground, air, and service forces whose mission was to keep China in the War. (On 31 October 1944, the CBI was separated into the China and IB [India-Burma] theaters. Throughout this narrative, however, the term "CBI" is used for common reference to both the China-Burma-India and India-Burma theaters, for relatively little neuropsychiatric record originated from the China theater after it became separate.) The ground forces were predominantly allied; the air forces, mainly United States. The service forces built roads, railroads, and pipelines to supply the allies in China. The

[1] This chapter, prepared in 1968, is based on monthly Essential Technical Medical Data reports; annual or final reports from medical units of the China-Burma-India theater; published official military histories of World War II; personal recollections; and, finally, as section II of this chapter, an abridged version of an official repor' on neuropsychiatry in the India-Burma theater.

[2] General Orders No. 1, Headquarters, American Army Forces, China-Burma-India, Chungking, China, 4 Mar. 1942.

[3] Medical Department, United States Army. Organization and Administration in World War II. Washington: U.S. Government Printing Office, 1963, pp. 72–73.

MAP 35.—Services of Supply hospitals, China-Burma-India theater.

Services of Supply, IB theater, was headquartered in New Delhi, with Base Section No. 1 in Karachi, Base Section No. 2 in Calcutta, Intermediate Section No. 2 in Chabua, Assam, and Advance Section No. 3 in Ledo, Assam.

By early 1944, Calcutta had become a secure port and was the major port for receiving and distributing supplies. The Air Transport Command, although autonomous in operation, was dependent upon the Services of Supply for logistic support. Supplies were flown over the "Hump," which required high-altitude flying through mountainous territory, often under adverse weather conditions. (See appendix J, "Psychiatric Casualties in Pilots Flying the China Hump Route.")

ENVIRONMENT

The topography of CBI ranged from desert to jungle, from lowland to high mountains; and the climate, from temperate to tropical. Sanitation was a constant problem; intestinal and tropical diseases were rife. The environment inescapably played a part in the mental disease problems, as the following descriptions clearly show:

> With the exception of China, the past two months have been characterized by consistently high temperature and high humidity through the entire theater. Precipitation was heavy * * * where rainfall was in the neighborhood of 20 inches per month [Ledo].
>
> The majority of the units * * * are quartered in bashas which although satisfactory in dry seasons have given trouble since the advent of the monsoon. It is not uncommon during the rain and windstorms for pieces of the roof to blow off in the midst of the downpour. Bamboo lattice work superimposed upon the thatched roofs obviates the difficulty to some extent * * *.
>
> The enervating effects of high daily temperatures with but slight diurnal variation must certainly be an important factor here. Rest camps are poor remedies. Two weeks in the best of them does not go very far toward restoring the losses of * * * heat, humidity, dietary insufficiency * * *.[4]

Another report noted that—

> The effect of the climate and ecology of this theater on troops is shown in a broad way by the curve of admissions for disease only. This curve has its peak in the midsummer season, a characteristic noted also in the curves for 1942 and 1943 * * * [and] is determined chiefly by the admissions for diarrheas and dysenteries, malaria, and F.U.O. [fever of undetermined origin]. The tremendous human reservoir of these diseases in this densely populated theater and the ubiquity of factors and means for their trans-

[4] (1) Essential Technical Medical Data, Rear Echelon, Headquarters, U.S. Army Forces, China-Burma-India, for July 1943, dated 12 Aug. 1943. (2) A comment on the ETMD (Essential Technical Medical Data) report is appropriate. The ETMD was a highly useful method of communication. It was required of each medical unit, monthly and annually. Although addressed to The Adjutant General, it was of prime concern to The Surgeon General. The major paragraph headings were defined, but no limits on content were set. Such a routine communication is the only way that higher technical authority can keep abreast of what is going on in the field, communicated in the language used between physicians, or even be informed. Further, it is the only way the man in the field can apprise the same authority of what the problems are, and what solutions have been found; that is, short of writing personal letters. Gratuitous letters are always dangerous because, implicit in a letter, is the connotation that the information communicated would not bear the scrutiny of official channels. The ETMD is an official channel. Were this channel not in operation, more personal letters would arise with consequent misunderstanding. The value of the ETMD is a lesson learned of World War II and also of the Korean War. This report should be preserved.

mission are the fundamental and inescapable factors underlying the occurrence of these diseases in U.S. troops.[5]

Other diseases of interest to the Medical Service "included dysentery, 700 cases in six months of which one-fifth were amebic and the remaining bacillary. Seven cases of amebic abscess of the liver (five Americans and two Chinese) * * *. Among the Americans, there were 250 cases of active syphilis and 100 among the Chinese." [6]

In 1945, Col. (later Brig. Gen.) Isidor S. Ravdin, MC, Commanding Officer, 20th General Hospital, during an interview on Medical Department activities in Assam, commented on local conditions as follows: [7]

> The most outstanding feature of the climate is the sustained high humidity and extremely high temperature during the hot months. In July, the temperature reaches 140° in the sun and even in the shade it averages 105°.
>
> During the monsoon, which lasts for many months [May through October], the air is almost completely saturated so that everything mildews—towels, shoes, and all leather objects—unless it is properly cared for.
>
> * * * * * * *
>
> So much of that country is impenetrable jungle that if a man moves ten miles from the small medical installation that would ordinarily serve him, it is easier to bring him back 150 or 200 miles by plane to one of the larger medical installations than to try to take him that ten miles through jungle to the installation that previously served him.
>
> * * * * * * *
>
> We arrived at Ledo, 20 March 1943 and found * * * large number of bamboo bashas, with thatched roofs and dirt floors, were being built. These buildings were definitely unsatisfactory for * * * the roof [should be made] watertight. This had not been done here, and all our shelter halves were eventually destroyed because we had to use them as canopies over the hospital beds to protect the patients from the soaking rains. These rains come right through the roof, wet the patient and the floor, and there is ankle-deep mud down the center of each ward. * * * there are a great number of termites in that area. The wards are supported on bamboo posts stuck into the ground. These posts are attacked by termites continually, and during the monsoon wind we have lost as many as six wards in a single night through the activities of termites.

MEDICAL ORGANIZATION AND POLICY

The basic organizational defects, resulting from the reorganization of the War Department in 1942, in which The Surgeon General became subordinate to the Commanding General, Services of Supply, and was rendered relatively impotent to promulgate or supervise medical policy, were apparent in a comparable situation in the CBI. The theater surgeon was not only quite removed from The Surgeon General in effecting his medical policy, but his status was also reflected in the inadequacy of staff positions authorized his medical section.

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[5] Essential Technical Medical Data, India-Burma Theater, for 15 Nov.–15 Dec. dated 25 Jan. 1945.

[6] Annual Report, 20th General Hospital, Assam, Burma, December 1943.

[7] Interview with Col. Isidor S. Ravdin, MC, in the Office of The Surgeon General, on Medical Department activities in Assam, 23 Jan. 1945.

A measure of the limitations imposed on Col. (later Brig. Gen.) Robert P. Williams, MC, CBI theater surgeon,[8] was that although he was forced to split his staff between the two theater headquarters, one located at New Delhi, India, and the other at Chungking, China, a request in May 1944, to increase his staff from 12 to 33, approved by the theater, was disapproved in Washington, D.C. Since, at that time, 38 percent of all evacuees were neuropsychiatric, Colonel Williams felt greatly handicapped by the lack of a position for a neuropsychiatric consultant.

Health conservation.—If the health, hospitalization, treatment, and conservation of military personnel are cherished by the high command, the commander must have a surgeon on his Special Staff and provide him with authority which will assure a proper discharge of the medical function. It cannot be done through an intervening commander. In point is the situation in the CBI where the skill and talents of medical officers were maldistributed in light of the needs of the total theater. Affiliated units (derived from civilian hospitals), such as the 18th, 20th, and 142d General Hospitals, had a wide distribution of talent in depth, while other units were entirely devoid of certain specialists. Until January 1945, even if the theater surgeon had had the authority to redistribute his medical officers appropriately, he was without staff consultants to advise him on the redistribution or to measure its effect.

Promotion.—It has been said that members of affiliated units are clannish and prefer to remain together. On the other hand, togetherness is carried too far if it means a lack of opportunity for promotion for qualified officers and enlisted men, and that is exactly what happened in the CBI. It was noted that when certain other units were without a competent chief of medicine, for example, competent internists seemed quite willing to take the more important job and the promotion, even though it meant leaving their affiliated unit.

In January 1945, after 3 years' service, mostly overseas, many highly qualified medical officers were still immobilized in the rank of first lieutenant, immobilized because they filled a TO (table of organization) slot in an affiliated unit. Had the theater surgeon been in an effective status, with a properly staffed medical section from the beginning, medical officers would have been assigned and reassigned in accordance with the needs and their talents; deserved promotions would have been possible; and the whole medical operation would have benefited.

Since rotation of medical officers, along with other personnel, was on the horizon in January 1945, many an officer was hopeful that, if a senior

[8] For the CBI, China, and IB theaters, the theater surgeons were:
China-Burma-India: Col. Robert P. Williams, MC, March 1942–October 1944.
China theater: Col. George E. Armstrong, MC, October 1944 until the end of the war.
India-Burma theater: Colonel Williams, October 1944–February 1945; Brig. Gen. James E. Baylis, February–September 1945; Col. Karl R. Lundeberg, MC, September–December 1945; Lt. Col. Howard A. Van Auken, MC, December 1945 to the end of the war.

officer left first, a promotion might be available. Considerable prejudice existed against officers' coming into the theater as individual replacements, with rank higher than captain. This was quite understandable, since each of the "oldtimers" regarded the new officer as a personal threat to his possible promotion. This may have been the reason why the theater, when finally authorized professional consultants, specified that none would be acceptable with rank higher than lieutenant colonel.

Disposition.—The lack of clear directives and the presence of conflicting directives, that is, technical medical bulletins and Army regulations, militated against a smooth operation in effecting appropriate disposition. Although basic rules and procedures are laid down in the Army regulations, it was necessary for the theater to issue directives which called attention to the appropriate regulations and which amplified and specified the procedures. As in the Zone of Interior and in all other theaters of operations, the perennial problem existed of medical versus administrative disposition of the noneffective soldier.

On 1 September 1944, Col. Alexander O. Haff, MC, then Surgeon, Services of Supply, CBI, outlined a policy on the kind of noneffective personnel who should be disposed of by medical evacuation or should be returned to duty for administrative action. The following are excerpts from Colonel Haff's memorandum: [9]

11. *c.* A clear distinction is to be made between the physically unfit and those who are to be handled through administrative channels.

d. "War Weary" personnel in flying status should be disposed of through Air Force administrative channels * * *.

e. * * * on occasion, patients are surveyed by one or more of the professional services of a hospital with negative results so far as significant defects are concerned. They are then transferred to the neuropsychiatric section where a report is turned out that it is more remarkable as an example of erudite nosology than as a description of an actual disability. It is to be remembered that there is no compulsion to make a medical diagnosis simply because the person has found his way into the hospital. If there is nothing wrong with him, the simple statement of honest fact: "Administrative admission. No disease found," is sufficient both from the standpoint of correct administrative procedure and, more important, from that of professional integrity.

f. * * * The duration of service overseas, the desire of examinee to return home, the fact that he is unhappy or that he could be more usefully employed in some other place or capacity, are all matters that should not be considered by the [disposition] board. It is not the function of the Medical Department or of disposition boards to supplement the policy for the rotation of personnel, to correct its supposed deficiencies, or to correct or mitigate the effects of assumed faults in personnel replacements.

* * * * * * *

17. *The Misfits and the Psychopaths.*—The errors that are made in the disposition of this class of cases is a cause of growing concern. The basic difficulty seems to be a tendency to confuse administrative with medical matters. The disposition board is a medical agency for the disposition of the sick and injured and is to be used for no other

[9] Essential Technical Medical Data, India-Burma Theater, for 15 Nov.–15 Dec. 1944, dated 25 Jan. 1945, inclosure 10 thereto.

purpose whatsoever. It is not to be used as an instrumentality of personnel administration to dispose of the maladjusted, the inadequate, and the disgruntled, and it must not be perverted to any easy channel of escape for the weak in spirit, the psychopathic and the nostalgic, and those who are so unmindful of their obligations and duty that they will seize any opportunity to escape the tedium of service in this theater and return to the comforts of home.

18. *The psychoneuroses.*—This much abused diagnosis is applied in one form or another to a considerable proportion of those who are evacuated to the United States. That it is often incorrectly used is all too obvious from a review of board reports. A few examples will suffice.[10]

FACTORS OPERATIVE IN NEUROPSYCHIATRIC DISORDERS

It is now (1968) generally held that psychosis, mainly schizophrenia, occurs at a constant rate in the drafted or enlisted army age group of between 2 and 3 per 1,000 troops per annum. The rate is somewhat less during periods of peace and somewhat higher during periods of mobilization; during the mobilization period, the highest rate occurs in the first 6 months of service. The rate of serious offenses, as measured by dishonorable discharge by general courts-martial, is similarly constant—about 5 to 6 per 1,000 troops per annum. The rates for medical discharge because of psychoneurosis or for administrative discharge because of inaptness, or unfitness for the service, are subject to great variation, depending on a host of factors related to policy and its local interpretation. Similarly, the rates for evacuation from overseas, based on diagnoses of psychoneurosis or personality disorder, fluctuate greatly. World War II, Korean War, and interval studies tend to show that efforts to identify and eliminate the potential psychiatric noneffective are fruitless if they go beyond identifying the psychotic, the severely mentally retarded, and the demonstrated antisocial personality.[11]

In combat, psychiatric casualties commonly rise with battle casualties initially, but tend to level off. The "each man has his breaking point" theory seems to have been demonstrated in troops subjected to prolonged intensive fighting and prolonged battle-casualty taking. At the same time, it seemed evident that "the breaking point" of the individual was more than a little dependent on his perception of the mores of the unit.

Fatigue, especially sleeplessness, under constant physical threat from the enemy and environment was operative in producing "emotional" casualties. Perhaps the single greatest factor productive of such casualties was the

[10] The examples are not cited here. They were, in brief, of (1) a middle-aged officer who had had 2 years' pleasant service in the United States, who arrived in the theater seeking a disposition board, stating he wanted to meet it quickly so that he could be evacuated home and discharged from the Army; (2) a young and worthless soldier in good physical condition; (3) a homosexual who became nervous when identified, stating that he had "lost face" and had become tense about his situation; and (4) a prisoner with a long history of anti-social activity, who had a secondary diagnosis of "psychopathy," but who became nervous about it all and was evacuated under the diagnosis of "psychoneurosis."

[11] Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, pp. 740–746.

perceived likelihood of honorable evacuation from the location—all factors based on the perceived mores of the unit, physical means for evacuation, and medical and line policies.

Although personality disorders were considered to be nonmedical, line officers often believed, and stated, that any soldier who did not do effective duty "*must*" be disabled by a medical condition. Therefore, by sending the soldier to the hospital, returning him to duty, and repeating the process, constituted a sort of circular existence, a limbo, in which the noneffective soldier did a lot of traveling, little else. A small unit line commander who assumed this attitude was often reflecting the attitude of higher authority, usually that of a general officer.

It was demonstrated in World War I,[12] that early treatment close to the soldier's unit, with early return to duty and with the preservation of his identity with his unit, is associated with a low rate of evacuation for psychiatric reasons. It must be emphasized that troops, well led, who feel an inner invincibility because they belong to an "invincible" unit are relatively immune to emotional casualties.

The following excerpt from a report,[13] made at the time and on the spot, relates to the perceived causation of the emotional casualty:

> * * * mental disease problems * * * are becoming more important as the months of service * * * go by. War weariness, or rather weariness of the war as it affects CBI is manifested by general expressions, restlessness, maladjustment, and in some cases a hopelessness which later leads into various types of anxiety states. This is less common * * * in the Air Corps [where] rotation and return of personnel serve to prevent the development of the depressed states so common among ground forces and behind-the-front workers where routine has become dull routine. Among such personnel the outlook for an indefinite period of relative inactivity where even the excitement of change or combat is totally lacking, plus the discomforts of living in India through heat and monsoon is definitely the cause of the great majority of mental cases returned from this theater. Proportionately, there has been less of these mental cases from China than from India-Burma. In India proper, there is little difference between one sector or another, regardless of the difference in localities—Bangalore with its delightful setting, New Delhi, with all its modernity, the tea plantations of Assam, the Road, anywhere * * *. [Psychiatric rates increased slightly, not alarmingly, but played an important part in health problems.] Not every man here by any manner of means is an out-and-out mental patient. But almost every man here for over a year can show proof of an astounding amount of weight loss, a very definite lack of physical energy, with an accompanying lowered pulse and blood pressure, low hemoglobin, and lowered red cell count.

The following narrative by Col. Charles L. Leedham, MC,[14] describes briefly the psychiatric experience in the CBI, before 1945:

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[12] The Medical Department of the United States Army in the World War. Neuropsychiatry. Washington: U.S. Government Printing Office, 1929, vol. X.

[13] See footnote 4 (1), p. 821.

[14] Personal communication, Col. Charles L. Leedham, MC, USA (Ret.), internist, to author, 1 Nov. 1967.

1. General

During the period of my service in the China-Burma-India theater, from February 1943 to December 1944, there were no consultants in any specialty, much less consultants in neuropsychiatry. Neuropsychiatry, for all practical purposes, was a stepchild. The handling of bona fide psychiatric problems was merely diagnosis, insofar as possible, in the interest of rapid evacuation to the States. Malingering was always the biggest factor in the determination.

2. Early Experiences

The undersigned [Charles L. Leedham], as the commanding officer of the 48th Evacuation Hospital, a Rhode Island unit, took this hospital overseas to encampment at Ledo, on the India-Burma border. The hospital's function, along with that of the 20th General and the Los Angeles Evacuation Hospitals, was to support a drive by the Chinese Army to clear the Japanese from Burma. To my knowledge, there were no neuropsychiatrists in any of the three hospitals mentioned.

It became quickly apparent that there would be no drive into Burma. It was, therefore, arranged that I take half of the personnel and equipment of the 48th Evacuation Hospital to Ramgarh, Bihar, where the 1st Chinese Army was in training. My function was to replace the hospital unit operated by Dr. [Gordon] Seagraves, the "Burma Surgeon." There were no neuropsychiatrists closer than the civilian profession in Calcutta.[15] Likewise, there were no psychiatric problems referred by the Chinese, they having a very effective means of control.

3. Calcutta Phase

In June 1943, I moved to Calcutta to take over command of the 212th Station Hospital which was then just beginning to function. This hospital, under my command, was expanded from a 75-bed tent operation to 2,000 beds under permanent shelter. This hospital complement had no neuropsychiatrists. A dermatologist, Capt. Cohen, had had some vague psychiatric experience and was, therefore, designated to handle neuropsychiatry problems with the help of three internists—myself, the executive officer, and the chief of the Medical Service. Appeals to headquarters in Delhi and Washington for assignment of neuropsychiatrists were unrewarded. Inasmuch as the 212th Station Hospital (later the 283d General) was to function as the main general hospital for the CBI, psychiatric determinations were regarded as most essential.

The management of neuropsychiatric problems obviously left much to be desired. The total function was detention, symptomatic therapy, and expeditious evacuation. The detection of the malingerer was probably the most difficult for the amateur psychiatrists involved, and obviously subject to error. A practical measure developed to help the decision-making process concerning malingerers was to accept them at face value and admit them to the disturbed ward. Usually 24 to 48 hours clarified the problem. Nevertheless, no significantly serious errors were made, principally due to the disposition board system and the good individual psychiatric care. Medical corpsmen, some of whom had prior mental hospital experience, plus a good psychiatric nurse provided that care.

4. Later Phase

In November 1943, before the completion of the base hospital construction, I was moved to the position of base surgeon of Base Section No. 2, which involved the eastern half of India. During my travels throughout the base, to hospitals, dispensaries, and units, I was always on the alert for specialists. While approximately 50 of the 350-plus physicians in the base complement alleged to be cardiologists. I could find not one who would admit he had neuropsychiatric experience. Finally, in an unguarded moment, one young medical officer admitted he had worked a year in a State mental hospital. He was

[15] Actually, four psychiatrists in 1943 and 10 in 1944 were in the CBI, but the statement attests to how scarce they were and how great the need.

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immediately transferred to Calcutta, despite protests, and assigned to the neuropsychiatric service. To my knowledge, this is the only psychiatrist who served in the CBI during my tour of duty there.

5. Construction Problems

Some very humorous things occurred at the Calcutta hospital. In constructing the buildings, one ward was designed to be a neuropsychiatric ward, particularly to hold disturbed patients for evacuation. Although my office and the American engineers did not approve of many features of the design, the British engineers and the Indian contractors assured us that the design was the standard British Army neuropsychiatry holding hospital ward, and thoroughly workable. So it was constructed although not accepted. However, patient census pressure dictated its early use even though it did not meet standards.

The first really disturbed patient pulled the barred window out of his room and escaped. These bars had been sunk one-half inch into a 2 x 4 frame, which frame had been held in the brick window opening with nails. When this situation had been repaired by countersinking the bars into the brick construction, the next really violent patient separated the bars with his hands and removed one using it effectively. It turned out that the bars, instead of being made of steel, had been made of soft iron. Obviously, this was corrected.

Instead of building a solid ceiling in the ward, the British had insisted that the ceiling be standard India construction, with only a cloth spread beneath the rafters. One of the earliest experiences was a disturbed patient who climbed up to the rafters and monkey-like walked back and forth across those rafters, pulling off loosely placed roof tiles to throw at the patients below. This led to more expensive alterations.

Section II. Narrative Report of Neuropsychiatry in the India-Burma Theater [16]

GENERAL CONSIDERATIONS

To understand the neuropsychiatric problems encountered in the India-Burma theater, one should be familiar with the theater environment.

Newly arrived soldiers were astounded at the filth, disease, and poverty in which the lower caste natives lived. Amebic dysentery, cholera, smallpox, malaria, tuberculosis, and nutritional deficiency diseases were rampant, especially in the larger overcrowded cities.

Many military units were small and stationed in isolated areas near insanitary native villages or were in the jungles along the Ledo Road where life was routine, social and recreational facilities scarce, food monotonous, and desirable feminine companionship unobtainable. Many Americans found it difficult to establish satisfying interpersonal relationships with the

[16] The original comprehensive "History of Neuropsychiatry in the India-Burma Theater in World War II," prepared by Lt. Col. John R. S. Mays, MC, Consultant in Neuropsychiatry, IB, 26 January–31 October 1945, has been abridged for inclusion in this chapter. In forwarding this "History" to The Surgeon General, on 29 October 1945, the Office of the Surgeon, Headquarters, U.S. Forces, India-Burma Theater, wrote, in part: "It is our opinion that this history will be a significant contribution. Colonel Mays is to be complimented for having covered an enormous amount of ground during this short period of service in the India-Burma Theater. We feel that the history, as presented, is a fair and adequate presentation of the problem as seen in the India-Burma Theater."

Indians because of cultural differences. Finally, added to these unfavorable circumstances was the climate. The summer season (May–October) was characterized by periods of low humidity, with temperatures of 112° to 120° F., followed by periods of high humidity and continuous monsoon rains. One emerged from this season somewhat exhausted mentally and physically and regained his zest only with the advent of the cool winter months.

The theater Medical Department was activated on 15 March 1942, when Colonel Williams, senior medical officer with General Stilwell's forces, was appointed theater surgeon for the China-Burma-India theater. The total strength of the theater at that time was approximately 3,000; its primary function was the supply of men and material to China. In the years that followed, the theater "grew up like Topsy," without the benefits of a consistent long term plan. Medical Department policies were formulated on a day-to-day basis in an effort to keep abreast of unpredictable military and political exigencies.

In the early theater period, the major problems confronting the theater surgeon were of a medical and surgical nature. No thoughtful consideration was given to the psychiatric patient, who remained, until 1945, the forgotten and misunderstood man.

ORGANIZATION AND ACTIVITIES OF NEUROPSYCHIATRIC SERVICE

Organization

The few available trained neuropsychiatrists [17] were assigned only to the staffs of general hospitals, where the neuropsychiatric section was usually a branch of the medical service. All patients who required definitive psychiatric care or disposition were transferred to these hospitals. Patients with mild neuroses and psychosomatic disorders were retained in the smaller hospitals and were treated by general duty medical officers with no psychiatric training and, in some instances, with no patience nor sympathetic understanding so necessary for successful psychiatric care. In consequence, many patients with mild psychiatric conditions were undetected and untreated until the disorders became so severe that admission to a general hospital was necessary. All too frequently, therapy at this later date proved ineffective, and evacuation of the patient to the Zone of Interior was necessary.[18]

In 1942–43, physical facilities were primitive and were limited to flimsy bamboo bashas that afforded little security or opportunity for treatment. These conditions improved during 1944 when most psychiatric

[17] See footnote 15, p. 827.

[18] Much unnecessary evacuation was a result of the lack of a clear and firm policy regarding administrative versus medical disposition.

patients were housed in fairly modern buildings, constructed of wood or brick, and furnished with kitchens, showers, and an occasional tub for hydrotherapy.

In the 1942–43 period, also, neuropsychiatric sections were poorly organized, trained personnel were unavailable, and segregation of patients was incomplete. The staff consisted of a chief, with perhaps an untrained medical officer as an assistant, and any nurses and enlisted men that could be persuaded to work with the chief. These conditions improved gradually as personnel became more efficient by on-the-job training, and by the addition to the staff of clinical psychologists and psychiatric social workers.

During 1945, all neuropsychiatric sections in general hospitals had a competent chief of section and a sufficient number of trained psychiatric ward officers, a clinical psychologist, a psychiatric social worker, and the necessary number of trained nurses and enlisted ward personnel.

A list of neuropsychiatrists and psychiatric ward officers on duty in the hospitals in the India-Burma theater, as of June 1945, follows.[19]

14th Evacuation Hospital:
Capt. Irving Chipkin (Chief)
18th General Hospital:
Lt. Col. (later Col.) Duncan Whitehead (Chief)
Capt. William G. Beadenkopf
18th Field Hospital:
Maj. John A. Belisle (Chief)
Capt. Benjamin Berger
20th General Hospital:
Maj. (later Lt. Col.) Edward N. Pleasants
Capt. Milton Korb
24th Station Hospital:
Capt. Milton J. Chatton (Chief)
30th Station Hospital:
1st Lt. (later Capt.) John D. Hammond
69th General Hospital:
Lt. Col. Frederick J. Bradshaw, Jr. (Chief)
Maj. Donald F. Moore
142d General Hospital:
Lt. Col. Donald B. Peterson (Chief)
Maj. Max Levin
Capt. Louis Charles Battista
181st General Hospital:
Capt. Robert L. Camber (Chief)
198th Station Hospital:
Capt. Leo N. Kuczmarski
234th General Hospital:
Maj. (later Lt. Col.) Marvin F. Greiber (Chief)
Capt. George I. Armitage
Capt. Henry G. Grand
371st Station Hospital:
Capt. Harold W. Hendrickson

Activities

The duties and responsibilities of psychiatrists in the CBI were similar to those of psychiatrists in general hospitals in the Zone of Interior. Their professional activities, in the early days of the theater, were, unfortunately, restricted largely to diagnosis, custodial care, and disposition of patients. Psychiatric treatment was seriously limited by the dearth of competent psychiatrists and the heavy professional and administrative workload

[19] Others known to have been in the CBI are: Lt. Col. Theodore Lidz, at the 18th General Hospital; Lt. Col. Herbert S. Gaskill, at the 20th General Hospital; at the 142d General Hospital, Capt. Seymour Hirsch, Capt. Joseph J. Gitt, Lt. Col. H. Whitman Newell, and Capt. Irving Bieber; and at the 181st General Hospital, Lt. Col. Sidney Schnur.

TABLE 77.—*Correlation of theater strength, hospital patients, and number of psychiatrists*

Year	Total theater strength (number)	Total available beds (number)	Total hospital admissions (number)	Total medical officers (number)	Total psychiatrists (number)
1942	17,193	1,304	501	?	None.
1943	79,142	6,752	2,994	?	4 (C–3130)[1]
1944	182,402	21,970	9,807	505	3 (B–3130) 6 (C–3130) 1 (D–3130)
1945[2]	181,948	17,552	7,162	401	1 (A–3130) NP Consultant 5 (B–3130) 6 (C–3130) 9 (D–3130)

[1] Military occupational specialty for psychiatry; the prefixes "A–D" denote degree of training and professional efficiency.

[2] From January to August.

carried at all times by each of them. These conclusions are inescapable when one considers that, in 1944, only 10 psychiatrists, several of whom had minimal training, were assigned to the theater to provide specialized care for 182,402 soldiers (table 77).

However, one should not be misled into believing that no therapeutic efforts were made. Narcosynthesis was used with good results in acute combat neuroses and in some acute anxiety reactions in noncombatant patients. Insulin shock therapy was used in some acute psychoses and acute anxiety reactions. Individual psychotherapy was employed as often as time and circumstances permitted. Unfortunately, group psychotherapy was not used until 1945, except at the 234th General Hospital, where it was instituted as a routine form of treatment in November 1943. In July 1945, electroshock therapy, for treatment in selected cases of acute psychoses, was introduced at the 20th, the 142d, and the 234th General Hospitals.

The available psychiatrists were unable to care for the great number of psychiatric patients on the neuropsychiatric section. Patients with mild neuroses and psychosomatic disorders were, therefore, retained on the medical service, after consultation with the psychiatrist. Under the circumstances, this was all that could be done, but the practical result was that the patients never received the proper psychiatric treatment and seldom left the hospital in better mental health than when they entered it. Most psychiatrists tried to correct this fault by seminar discussions with the medical staff, in which clinical cases of psychosomatic disorders were presented and the basic concepts of psychopathology and psychotherapy were discussed. This, however, seldom resulted in making the general duty medical officer a competent psychotherapist, though it may have rendered

him more psychiatrically minded in his medical thinking. Later, a more practical solution of the problem was attained by permitting these patients to remain on the medical service and attend the regular group psychotherapy lectures given by the psychiatrist.

In early 1945, active group psychotherapy programs were inaugurated at all general hospitals, in some instances over the protests of the chief of section who was unfamiliar with the technique of the therapy and lacked faith in its efficacy. However, after using this type of therapy for several months, most psychiatrists were convinced that it was the only technique by which a few psychiatrists could give adequate psychotherapy to a large group of patients with any hope of returning a high percentage of them to duty. The lectures followed, generally, the principles outlined in War Department Technical Bulletin (TB MED) 103, "Group Psychotherapy," of 10 October 1944, and consisted of a minimum of three 1-hour lectures a week for 10 lectures.

The technique and subject matter of the group therapy session varied with the individual therapist, but usually consisted of a 35-minute lecture, followed by 20 minutes of lively group discussion. The sessions served to release feelings of hostility and guilt, gave one insight into the mechanisms of his illness, provided new concepts of motivation, and stimulated group integration. Patients with mild neuroses and psychosomatic disorders who were retained on the medical service and neurotics treated in the outpatient clinic were offered the opportunity to attend these lectures. The clinical psychologist and the social worker contributed to the program and, at a later time, discussed with individual patients the more personal problems brought into focus by the lectures.

To prevent unnecessary hospitalization and to make psychiatric treatment available to personnel who desired to remain on a duty status, several general hospitals operated outpatient clinics 1 or 2 days a week. As just mentioned, personnel receiving treatment on an outpatient basis attended the hospital group psychotherapy lectures. Unit commanders were kept informed of the patient's progress by letters; they cooperated closely with the psychiatrists. The writer has seen several letters from grateful patients who attended these clinics, in which they expressed their appreciation for the opportunity of receiving psychiatric treatment without having to suffer the stigma of hospitalization.

The outpatient clinic also provided unit commanders psychiatric advice for the solution of their administrative and disciplinary problems. Many cases of psychopathic personality, chronic alcoholism, and mental deficiency were studied and then recommended for administrative disposition under the provisions of AR 615–368 or AR 615–369. Determination of mental responsibility for court-martial offenses was rendered when requested. The average monthly caseload of an active clinic was about 30 patients.

Other duties of the psychiatrists were hospital consultations, attendance at medical disposition boards, presentation of clinical cases at weekly medical staff meetings, and weekly seminars for their staff on psychiatric and psychosomatic subjects.

In addition, several psychiatrists found time and energy to make interesting special clinical investigations on such subjects as toxic psychoses due to Atabrine (see appendix K, for a composite report), combat psychiatry, peripheral neuritis as a complication of cutaneous diphtheria, and narcosynthesis in the treatment of noncombatant neuroses, which have subsequently been published.[20]

ACTIVITIES OF NEUROPSYCHIATRIC CONSULTANT

General

When the consultants in medicine, neuropsychiatry, and surgery arrived in the India-Burma theater on 28 January 1945, the theater had been in operation for 3 years. Six months thereafter, the war ended, and the theater rapidly became inactive. During this short period of time, the consultants were able to make only one complete round of visits to all hospitals in the theater and to pay a courtesy visit to the major hospital installations in the China theater.

At the time the consultants arrived in January 1945, the Medical Department had expanded to include 30 hospitals: six general, five evacuation, four field, and 15 station hospitals. There were 9,819 hospital patients and 512 medical officers, 10 of whom were neuropsychiatrists. Only seven of the 30 hospitals had neuropsychiatrists on the staff, and in some instances, the designation "neuropsychiatrist" was honorary.

The main burden of the psychiatric care in the theater was borne by three general hospitals: the 20th, at Ledo; the 234th at Chabua; and the 142d, at Calcutta. The 18th General Hospital at Myitkyina and the 69th General Hospital at Ledo functioned only a few months and cared for a relatively small number of patients. The 181st General Hospital at Karachi was fairly active during 1944, but the census declined rapidly in 1945.

Activities in the Theater Surgeon's Office

The first task that confronted the neuropsychiatric consultant was to sell psychiatry as a practical and scientific speciality of medicine to the theater surgeon who had been reported as being antagonistic to psychiatrists and psychiatric concepts. This turned out to be an easy and pleasant

[20] (1) Gaskill, H. S., and Fitz-Hugh, T., Jr.: Toxic Psychoses Following Atabrine. Bull. U.S. Army M. Dept. No. 86, March 1945, pp. 63–69. (2) Greiber, M. F.: Narcosynthesis in Treatment of Noncombatant Psychiatric Casualty Overseas. War Med. 8: 85–90, August 1945. (3) Gaskill, H. S.: Marihuana, An Intoxicant. Am. J. Psychiat. 102: 202-204, September 1945. (4) Gaskill, H. S., and Korb, M.: Occurrence of Multiple Neuritis in Cases of Cutaneous Diphtheria. Arch Neurol. & Psychiat. 55: 559-572, June 1946.

task, as it was not psychiatry he disliked so much as it was psychiatrists in general. It had been his unfortunate experience never to have met any psychiatrist whom he could respect personally and professionally. He frequently remarked to the consultant during their early days of acquaintanceship, "I do not see how you can be worth a damn as a psychiatrist. You seem too normal and practical. I figured you had to be a screw-ball to be a good psychiatrist." After about 3 weeks of social and professional contacts, the theater surgeon showed his confidence in the consultant by delegating to him the full responsibility and authority for supervising all neuropsychiatric policies and problems in the office. In addition, he was ever ready to give valuable advice and enthusiastic cooperation when either was requested. Psychiatry was no longer the unloved and misunderstood stepchild in the family of medical sciences in the theater; it now enjoyed the status of a favorite son, and accepted its responsibility with high endeavor.

The consultant's next task was to gain the friendship and professional confidence of the psychiatrists in the hospitals. This was essential, as many psychiatrists, believing they were unappreciated and mistrusted in the theater surgeon's office, had become somewhat resentful and limited their dealings with that office to the bare necessities of formal correspondence. The mutual antagonism though somewhat intangible and unspoken was nevertheless real and needed immediate amelioration. Frequent personal contacts with the hospital psychiatrists were impossible because of the immense size of the theater, the poor telephone communications, and the isolated distribution of the hospitals. Therefore, informal personal correspondence with the consultant was encouraged. This provided a valuable medium for the exchange of ideas and counteracted their feeling of hostility to the surgeon's office.[21]

The medical disposition board proceedings on all psychiatric patients recommended for evacuation to the Zone of Interior were critically reviewed by the consultant. This furnished him an opportunity to evaluate the ability and judgment of the individual psychiatrists. When errors of diagnosis, treatment, or disposition were detected, a letter was written to the psychiatrist describing the error and outlining the recommended correction. The most frequent errors were the unjustified diagnosis of Atabrine psychosis in cases of constitutional psychoses, and the incorrect diagnosis of the psychopathic personality as a neurosis, with the recommendation for evacuation through medical channels to the Zone of Interior. Several instances were detected where officers and nurses who were psychopathic personalities or were noneffective for nonmedical reasons were incorrectly diagnosed as neuroses and recommended for evacuation through medical channels.

[21] That the psychiatrist was subordinate to the chief of medicine and not on the immediate staff of the hospital commanding officer created its own problems in communication.

The correspondence between the consultant and the hospital psychiatrists served to insure a uniformity of psychiatric criteria for medical and administrative discharge. The psychiatrists were encouraged to insist on the administrative disposition of noneffective personnel (especially officers), even though the line officers and sometimes the commanding officer of the hospital requested they be discharged medically.

All court-martial proceedings in which insanity was claimed as a defense and all proceedings of boards of officers convened under AR 615–368 and AR 615–369 were reviewed by the consultant at the request of the theater Judge Advocate General. In the latter's office, psychiatry had lost face considerably because of the lack of uniformity of psychiatric decisions as to the mental responsibility of certain types of psychopathic personality, especially the kleptomaniac and the impulsively suicidal and homicidal psychopath. After several conferences with the Judge Advocate General, it was decided that the consultant should prepare an article on this subject for publication in the monthly *Field Medical Bulletin*. The article appeared in the March 1945 issue of the *Bulletin* under the title "Criteria for the Determination of Mental Responsibility," and contributed materially to the future uniformity of psychiatric decisions in these cases.

In the AR 615–368 and AR 615–369 boards of officers, the psychopathic personality was again the source of much misunderstanding. There was frequently the question of whether the defendant should be court-martialed for his offense or separated administratively from the service. At times, the board considered the emotionally unstable psychopath with vague somatic complaints as a neurotic and believed he should be separated medically. Occasionally, two psychiatrists disagreed on whether the defendant was a psychopath or a neurotic. Some boards were reluctant to recommend separation for individuals who admitted a long history of homosexuality but had never been apprehended in the act. There were also boards that refused to discharge the chronic alcoholic because they believed he was amenable to stern disciplinary action. As usual, there was always the tendency for unit commanders to insist that these troublesome individuals be discharged through medical channels, as the officers were often too indolent to carry through with the more time-consuming administrative procedures. This problem, with the measures taken to correct it, is discussed in the section "Activities in General Hospitals."

Another important function of the consultant was to advise the theater surgeon on all matters relating to the placement of psychiatric personnel, to the morale and mental health of the command, to the evacuation of psychiatric patients, and to the formulation of theater policies associated with these activities.

The consultant served in a very active capacity as psychiatric consultant on the staff of the 100th Station Hospital in Delhi. Though this hospital had only 100 beds and the professional staff was limited, it was the

only hospital in the area for the medical care of headquarters personnel. Several interesting cases of psychoses, neuroses, acute head injuries, encephalomyelitis, poliomyelitis, disseminated sclerosis, and virus mononeuritis were seen in consultation and the patients transferred to general hospitals for definitive care. Numerous psychopathic personalities were examined and recommended for AR 615–368 and AR 615–369 boards of officers, and six patients awaiting court-martial were studied to determine their mental responsibility for military offenses. This was a pleasant duty as it afforded the consultant an opportunity to do professional work.

No clinical psychologists were assigned to the hospitals in the theater when the consultant arrived. Within the first 4 months, five candidates appeared before a board of officers and were approved by the consultant and assigned as clinical psychologists to the neuropsychiatric sections of general hospitals. As there were only six vacancies and about 15 applicants, each applicant and his credentials were closely scrutinized in an effort to select the best qualified candidates. Those selected were: 2d Lt. Morton I. Teicher, to the 20th General Hospital; Lt. Thomas Kelly, to the 234th General Hospital; 2d Lt. John C. Milner and 2d Lt. Richard L. Beard, to the 142d General Hospital; and Capt. Stanley S. Swartz, to the 18th General Hospital.

Activities in General Hospitals

Because of the infrequency with which the consultant was able to visit the hospitals, each inspection was extremely thorough and usually required the better part of 4 or 5 days. Every phase of professional and administrative activity was investigated. When the inspection was completed, a conference was held with the chief of section and the commanding officer of the hospital, at which time the deficiencies found were discussed, recommendations made, and policies explained. Later, a written report, covering the inspection and the conference, was forwarded through the theater surgeon to the hospital commander.

By January 1945, the physical facilities at each hospital had improved to the extent that all neuropsychiatric sections were housed in adequate wood or brick buildings.

The shortage of adequately trained psychiatric personnel was a constant problem. However, it was always possible to keep at least one well-trained psychiatrist as chief of section at each general hospital. Appropriate reassignment of general duty medical officers with minimal psychiatric training was made where they could be most useful. It was the responsibility of the chief of section to further the training of his personnel.

The subject of therapy has already been discussed. The consultant assisted the chiefs of section to organize a program of group psychotherapy. He stressed that every psychiatric patient was to receive as active treat-

ment as a medical patient with pneumonia, and that group psychotherapy was the only method by which one psychiatrist could successfully treat a large number of patients. An occasional psychiatrist was reluctant to inaugurate the program, but soon all realized that the results more than justified the effort. Some psychiatrists in the theater claimed to have returned 80 percent of their psychoneurotic patients to duty when group psychotherapy was added as part of the "total push" method of treatment.

Electroshock therapy, as already mentioned, was introduced at three general hospitals. This type of therapy promised to be the most popular and effective method of shock therapy for use in the theater.

Each neuropsychiatric section evolved a reconditioning and occupational therapy program which varied in excellence at the different hospitals. In most instances, the psychiatric patients had responded so poorly to the regular hospital program that the hospital commanders had authorized a separate psychiatric reconditioning program. Only one of these programs, that of the 234th General Hospital, included a well-organized course of group psychotherapy lectures before 1945. Reconditioning was stressed by the consultant on his inspection visits, and he recommended intensification of the program to include the addition of group psychotherapy, according to the general principles outlined in TB MED 80 of 3 August 1944, on the organization of convalescent hospitals; in TB MED 84 of 10 August 1944, on treatment program for psychiatric patients in station and general hospitals; and in TB MED 103.

On admission, all patients were assigned a reconditioning schedule in keeping with their ability and were upgraded as rapidly as possible. Most psychiatrists made local arrangements by which they were able to return their patients directly to duty, without long periods of unnecessary delay at convalescent camps and replacement depots. The psychiatrists were assisted in the program by the clinical psychologist, the psychiatric social worker, the Red Cross recreational worker, and certain keymen from the regular hospital program. The social and recreational facilities varied according to whether the hospital was located in an isolated area or near a large city.

The reconditioning consultant, Capt. Stanley C. Gillette, MAC, in his history, made the following comments in regard to neuropsychiatric reconditioning: [22]

> All patients were to receive psychiatric reconditioning at the earliest possible time after admission, even if scheduled for evacuation. This program consisted of individual and group psychotherapy, information classes, occupational therapy on a diversional basis, limited vocational therapy, mild physical reconditioning and planned entertainment.
>
> Inspections by the Reconditioning Consultant and Psychiatric Consultant revealed that the 20th, 69th, 234th, 142d, and 181st General Hospitals all had excellent programs functioning under the personal supervision of the Chief of the Psychiatric Section in each hospital, and assisted by reconditioning personnel. The 142d General Hospital,

[22] Gillette, Stanley C.: The History of Convalescent Reconditioning in India-Burma Theater, 1945, pp. 24–25. [Official record.]

2,000 beds, had perhaps the best program in the theater, supervised by Lt. Col. D. B. Peterson, MC, Chief of the Psychiatric Section. Not only were the various activities listed above developed to a high degree of efficiency, but in addition they conducted supervised shopping and sightseeing tours, put on patient shows, used musical accompaniment for exercise periods, and obtained the part-time use of a swimming pool in Calcutta for their patients. This program proved very successful as evidenced by the large percentage of patients returned to duty.[23]

In each hospital, ward rounds were made by the consultant with the chief of section and his staff, in which each patient was interviewed, his clinical records examined, and problems elicited. The following are some of the more important medical problems encountered at general hospitals:

1. Many general duty medical officers and some psychiatrists were unable to make a differential diagnosis between a psychopathic personality and a neurosis. As a result, quite a few unstable psychopaths with vague somatic complaints were diagnosed as neuroses and evacuated through medical channels. This tended to lower the morale of the unit, to increase the number of neuropsychiatric evacuees, and to discredit unfairly the genuine neurotic by placing both him and the psychopath in the same category.

2. The aggressive, nonpsychotic psychopath who "impulsively threatened" suicide or homicide every time he was frustrated or punished was an ever-present source of disconcertment to line officers and some psychiatrists. The latter often became apprehensive over the problem and diagnosed the patient as "psychosis unclassified" and evacuated him medically with an attendant. In many of these instances, the psychiatrist realized the patient was sane and mentally responsible for his actions, but was fearful that the soldier "might" kill himself or somebody else. The consultant insisted that the psychiatrist's decisions in these cases should depend on a yes-or-no answer to one question: "Is the patient psychotic?" If the answer was "yes," then the patient should be relieved of mental responsibility and handled as any other psychotic patient. If the answer was "no," he should be returned to his unit for administrative disposition. The patient's commanding officer was then to be advised, in writing, that the soldier was sane and mentally responsible for actions but, nevertheless, a dangerous man who should be removed from the hospital under guard and be disposed of as an administrative problem.

3. There were numerous instances in which the psychiatrist diagnosed a patient as a psychopathic personality and returned him to duty with the recommendation that he be separated administratively under the provisions of AR 615–368 or AR 615–369. In one specific case, the soldier was never presented before a board of officers and, as a result of the same difficulties and complaints, was readmitted to the hospital a few weeks later. Again, he was returned to duty with the same recommendation, only to be readmitted shortly with the same complaints. After four or five readmissions, the

[23] This program was already in effect when I joined the 142d General Hospital. It owed much to the hard work and enthusiasm of the assigned American Red Cross personnel.

psychiatrist in desperation finally diagnosed him as a neurosis and evacuated him medically.

This type of situation was especially bad at the 142d General Hospital, when the consultant visited it in February 1945. It turned out that, at that hospital, all patients recommended for administrative disposition were assigned to duty at a nearby replacement depot. The patients were never presented before the disposition board for administrative separation, but hung around the depot for 3 or 4 months, awaiting reassignment. When they refused to work or offered physical complaints, they were returned immediately to the hospital. Thus began the vicious circle which ultimately ended in medical discharge. After hearing the psychiatrist's story, the consultant visited the commanding officer of the depot, who, at first, was very angry and shouted: "I haven't any time to fool with that type of man. He is a 'psycho' case and when he cannot work I am going to send him back to the hospital." After a heated 2 hours' session, the commanding officer admitted there had never been an AR 615–368 or AR 615–369 board of officers appointed for the camp and that he had never requested that one be appointed. However, he promised that, if the consultant would have Headquarters, IBT, appoint the board, he would bring all cases so recommended by the psychiatrists before it. This was done, and the situation rapidly improved.

In July 1945, however, a case from the same hospital came to the attention of the Inspector General. This concerned a soldier who had been shifted back and forth between various hospitals and his unit eight times. The hospitals on five occasions found no medical disease and on three occasions had recommended administrative discharge. As a result of the conference with a representative of the Inspector General's Office, the consultant drafted a directive on the "Administrative Disposition of Noneffective Personnel" which was finally published in Circular No. 101, Headquarters, U.S. Forces, India-Burma theater, dated 28 August 1945. This circular directed unit commanders to present all cases so recommended by the psychiatrist before an AR 615–368 or AR 615–369 board of officers without delay.

4. Many medical officers attributed noneffectiveness to coexisting minor medical defects which were in themselves not disabling. The consultant stressed the point that the degree of ineffectiveness was not the criterion for medical discharge, but rather the degree of medical disability produced by the defect. Many of these patients did well on group psychotherapy, as this type of treatment served to ameliorate the real etiologic factors of their disability; namely, poor morale and motivation, misassignment, and minor situational maladjustments.

5. Only occasionally were general medical officers found who had a workable knowledge of psychosomatic medicine. Yet, an understanding of these concepts was especially necessary for the proper diagnosis and treat-

ment of patients on the cardiology and gastroenterology wards. Often, when the consultant in neuropsychiatry was making joint rounds with the medical consultant, it was found that the only cases reported to the latter as "difficult diagnostic problems" were psychosomatic disorders in which all physical and laboratory findings were repeatedly negative and the patient continued to complain of symptoms. The medical officers concerned had frequently never considered the possibility that emotional factors could have served to precipitate and perpetuate the illness or were materially involved in the treatment. Many medical officers believed they had obtained a complete personality study when they had asked the patient, "Are you nervous or worried about anything?" and the patient had replied, "No."

During these ward rounds, both consultants discussed several clinical cases of psychosomatic disorder and demonstrated the technique of obtaining the personality history and its utilization in the diagnosis and treatment of the patient. These clinical demonstrations served to clarify the medical officers' knowledge of these cases and stimulated them to apply the newly acquired concepts in the study of other patients with similar disorders. "Psychosomatic Medicine," by Weiss and English,[24] and "Emotions and Bodily Changes," by Dunbar,[25] were recommended as informative reading on this subject, and were available on requisition from medical supply depots.

The success of this combined psychiatric-medical approach was made possible by the fact that the medical consultant, who spoke of himself as a "lay preacher in psychiatry," was well oriented in psychiatric concepts and always practiced what he preached. The two consultants were humorously referred to by their friends as the "psychosomatic gold-dust-twin-team."

6. Neuropsychiatric nomenclature varied from hospital to hospital and even within the same hospital. This confusion in terminology resulted in inaccurate statistics. The consultant drafted a monthly neuropsychiatric statistical report form, using as statistical headings the official nomenclature recommended in AR 40–1025. It was then an easy task for the statistical section of the theater surgeon's office to compile an accurate consolidated theater monthly report.

7. The types of neuropsychiatric cases observed in the hospitals of the noncombat India-Burma theater were similar, in general, to those encountered in the Zone of Interior. They consisted of the run-of-the-mill type of psychoses, neuroses, psychopathic personalities, and primary behavior disorders. Most of these illnesses occurred in predisposed individuals with long histories of premilitary inadequacy and maladjustment.

[24] Weiss, Edward, and English, O. Spurgeon: Psychosomatic Medicine: The Clinical Application of Psychopathology to General Medical Problems. Philadelphia: W. B. Saunders Co., 1943.

[25] Dunbar, H. Flanders: Emotions and Bodily Changes: A Survey of Literature on Psychosomatic Interrelationships, 1910–1933. Published for the Josiah Macy, Jr. Foundation. New York: Columbia Univ. Press, 1935.

Many were sent to this theater because these personality defects prevented their assignment to combat areas. It was a mistake to believe that the chronic neurotic, though disqualified for combat duty, could serve well and long in a noncombat theater. This latter type of duty had its own stresses, such as isolation, separation from family, climatic vicissitudes, and dull routine assignment, which were capable of producing a breakdown in the patient's ability to maintain an adjustment. However, many of the chronic neurotics that decompensated in the India-Burma theater could have continued to render satisfactory service had they been allowed to remain in the Zone of Interior. Most of the psychiatrists believed the theater received more than its share of psychopathic personalities.[26]

Several psychiatrists reported instances where psychopaths were released from guardhouses in the Zone of Interior, their sentences suspended, and shipped to this theater for duty. They were a constant source of trouble on the way over and remained a disciplinary problem until they were returned to the Zone of Interior. Most psychiatrists believed that the induction board standards and the overseas service standards were satisfactory, and that the errors lay in the application of the standards to the individual soldiers by medical officers and line officers.[27]

Activities in Small Hospitals

As stated elsewhere, only seven of the 30 hospitals in the theater had psychiatrists on the staffs. At the smaller hospitals without psychiatrists, the consultant in neuropsychiatry and the consultant in medicine made joint ward rounds as already described. A conference was later held with the entire medical staff in which the more technical professional and administrative aspects of the cases seen were discussed by both consultants. Psychiatric problems encountered in both types of hospitals were similar, except that they were more acute in the smaller hospitals without psychiatric advice. Though the average medical officer knew little or nothing about psychosomatic medicine,[28] he became very interested in this approach once he grasped the fundamental principles on which it was based. Both consultants felt that some of their most fruitful and most appreciated work was done at these smaller isolated hospitals.

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[26] During World War II, it was the firm belief of psychiatrists and all senior officers, as well as of unit commanding officers, that their theaters received more than their share of "misfits" and disciplinary problems. Apparently, this theater was no exception.—A. J. G.

[27] All of these conclusions may be correct, but until the arrival of the consultants in medicine and psychiatry, the lack of firm, published psychiatric policy implemented uniformly by medical and line officers was of overriding importance.

[28] In common with many other psychiatrists of World War II, Dr. Mays uses the term "Psychosomatic," interchangeably with "psychiatric," in a broad sense to include psychological mechanisms producing somatic symptoms, including gain in illness.—A. J. G.

Morale

The consultant found it most difficult to offer an authentic quantitative estimate of the state of morale in the theater. During his 6 months of active service, in India-Burma, he saw only hospitalized psychiatric patients whose morale was usually poor, as would be expected under the circumstances. He did not have the opportunity to observe troops who were productively and happily occupied with duties in the field. The state of morale is difficult to estimate as it varies from time to time and from unit to unit. It is a complex and somewhat intangible quality, easily diminished by factors such as inadequate leadership, poor motivation, misassignment, domestic difficulties, and improper orientation to military necessities and demands. Major variations in the state of morale are meaningful indicators of the efficiency of the command and indicate the direction for corrective measures.

After interviewing many people who were supposedly knowledgeable about the subject of morale and consulting what few records were available, the consultant reached the following conclusions: Nothing was known about the state of morale of the theater during its first 3 years of existence. Several of the oldtimers stated, "the morale was good during the first 2 years of the theater (1942–43), as living conditions were primitive, and the few people who were here had so much work to do they had no time to become unhappy." The morale officer, Col. Donald Young, remarked that morale manifested a steady downward trend during 1944 and 1945. In August 1945, it reached its lowest point, after which time it began to show noticeable improvement.

The following are some of the factors that tended to lower morale in this theater:

1. The discomforts and hardships of living in the India-Burma theater, such as dull routine assignments, vicissitudes of climate, lack of feminine companionship, isolation, shortage of supplies, and the filth and disease of the natives. Many soldiers considered this a forgotten and unappreciated theater.

2. The inefficient, cumbersome, and ever-changing rotation policy was a constant source of complaint. A bad situation was made worse by the release of premature and inaccurate information by stateside radio commentators, relative to War Department changes in rotation policies.

3. Poor leadership due to immature and inadequately trained officers and noncommissioned officers.

4. Poor motivation and orientation as to why it was necessary for them to be in this theater at all. Many believed that the theater had no military value or function and that they could do a much better job in a defense plant in the States.

5. Promotions were slow and limited by tables of organization. Many

soldiers remarked, "It's who you know, rather than what you know, that gets you promoted."

6. Many enlisted men objected to what they called the "preferential treatment" received by officers, such as monthly whisky rations, dates with American Red Cross workers and nurses, better food and quarters, and extra transportation for recreational purposes.

7. Complaints and dissatisfaction regarding misassignment were numerous and constant. An example of this was a soldier with 15 years' experience in civilian life as a diesel engine operator, who during his 40 months in the Army had served as a typist.[29]

8. Replacements sent over from the States were young and untrained in their jobs.

9. There were numerous instances where American soldiers resented the British and Chinese soldiers, and felt that the latter were getting better American food and clothing than they were.

10. Insufficient rest leave and poor insanitary rest camps.

11. Some men claimed that they received poor medical attention and medical officers frequently told them, "You are a goldbrick," and "there is nothing wrong with you, it's all in your head."

12. Soldiers were sent to the frontline without sufficient training, and this resulted in unnecessarily high casualties.

13. Severe shortage of post exchange supplies in certain sections, reportedly due to "black marketing."

14. There were relatively few instances of Negro soldiers who claimed they were discriminated against because of their race.

15. Some medical officers were very resentful of rumors that they would be involuntarily detailed in the Army or transferred to Veterans' Administration hospitals for long periods of time. They believed that this measure was sponsored intentionally by the Government in an effort to advance the cause of socialized medicine.

16. The chief complaints of the nurses were the slowness and unfairness of promotions, the ineffectiveness of rotation policy, the shortage of clothing and toilet articles, and the fact that they had had no Director of Nurses for the first 2 years.

In January 1944, a research unit was sent to the India-Burma theater from the States to "study the attitude and opinions of soldiers," and made two questionnaire surveys during 1944. On 26 October 1944, Gen. George C. Marshall, the Chief of Staff, wrote a personal letter to the theater commander, stating that the morale was in need of improvement, and enclosed a list of complaints made in stateside "sound-off sessions" by CBI returnees. He also recommended the appointment of a full-time morale and leadership officer whose duty would be the study and improvement of morale.

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[29] Such situations can be promptly rectified if the theater is properly organized with the consultant system, which presupposes an effective liaison with G–1 (personnel).

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In December 1944, an informal morale board was appointed. According to information at hand, they did little except to meet occasionally and discuss certain theoretical considerations. This arrangement naturally proved unsatisfactory as no effective action ever resulted, and meanwhile, morale continued to deteriorate rapidly. In May 1945, Colonel Young was appointed as morale and leadership officer and immediately inaugurated an active program. He organized a new morale board, consisting of the Inspector General, the information and education officer, the public relations officer, the special service officer, and the theater chaplain.

The following measures were instituted by Colonel Young in an effort to improve morale:

1. The number and quality of research unit teams in the field were increased so that each section of the theater had its own permanent team. Numerous "trend" questionnaire surveys were made and effective action was taken on their recommendations.

2. The active and interested assistance of the Inspector General was obtained in the investigation of complaints revealed in the research unit questionnaires and "gripes" from the stateside "sound-off sessions" sent each month by the War Department.

3. Frequent and detailed inspections of units were made by the morale officer.

4. Radio programs and stations were reorganized and intensified. Finally, there were 16 radio stations which gave coverage for the entire theater. More authentic information was released through radio programs relative to theater policies, plans, rotation schedules, promotion, and so forth, to prevent rumormongering.

5. Seven rest camps were established with modern recreational facilities, sanitary quarters, and good messes. Rest leave was made easier to obtain.

6. The information and education programs at the various units were enlarged and made more active. Several booklets were published periodically, such as "CBI Talks," explaining certain local and national problems.

7. The theater paper *Roundup* was given more official information for publication, such as changes in rotation policies and personal interviews with high-ranking staff officers in which future plans were outlined and explained.

8. Public relation officers sent home writeups and pictures of men to their local hometown papers.

9. The post exchange stocks were increased and most articles removed from the list of rationed goods.

10. The officers' monthly whisky ration was suspended.[30]

[30] Did this ever build morale! It was a dog-in-the-manger device. American officers traded a case of beer for the British enlisted men's ration of Scotch whisky, and upped their consumption of local whisky and South African brandy. We did not, at the time, realize that our morale was being improved—we thought that the end of the war in Europe had "snafu'd" the transportation system.

11. The quality and frequency of movies and USO (United Service Organizations) shows were improved. An adequate supply of athletic and recreational equipment was received and issued to all units.

The most important factors which tended to elevate morale were the end of the war and the inauguration of the point system of rotation. The state of morale was then excellent and everybody was patiently and happily awaiting the day when he would be returned to the States and discharged from the Army. Like so many other things in the theater, it was unfortunate that the excellent morale program was developed 3½ years too late to do any real good.[31]

COMBAT PSYCHIATRY

The War Department never intended to send any large American ground combat force to the China-Burma-India theater, but in the end did send some specially tailored units. The major campaigns in which American troops participated occurred intermittently from February 1944 to May 1945 in North Central Burma. The two principal organizations engaged in this combat were Merrill's Marauders and the Mars Task Force.

Merrill's Marauders began fighting on 25 February 1944, above Ledo, and fought until they were relieved, on 4 July, during the Battle of Myitkyina, by the Mars Task Force. This latter organization with the help of Chinese forces captured Myitkyina on 3 August 1944, and, after this, spearheaded the Chinese "New First Army" in the drive to Lashio, which fell on 16 March 1945.

No attempt was made to organize a setup for on-the-spot treatment of psychiatric combat casualties. After relatively long delays, the psychiatric casualties were evacuated to field and evacuation hospitals where they were cared for on the medical and surgical services by general duty medical officers. No psychotherapy was given, and after a few days of oral sedation, they were returned to duty or eventually transferred to the 20th General Hospital at Ledo or to the 234th General Hospital at Chabua. A total of 220 psychiatric casualties were reported as having occurred in the 5,000 soldiers engaged in the campaign. This is a small percentage, and does not present a true picture of the actual number of psychiatric casualties produced. Colonel Mays believed that amongst the tremendously large number of casualties evacuated for malaria, dysentery, and typhus were many individuals who, had they not been evacuated for these medical reasons, would have broken down later as psychiatric casualties. This belief is supported by the fact that many of these medical evacuees, when returned to duty,

[31] The morale program, as outlined, may have been excellent, but the state of morale was not good. Morale varied directly in proportion to time overseas. The less one had sacrified, the lower seemed the morale. Personnel, overseas for 36 months or more, could await their turn; others, overseas for 4 months jostled to get ahead of the line. I am in complete opposition to Dr. Mays' formulation; I believe it fortunate that "the excellent morale program was developed 3½ years too late * * * ."

developed psychiatric disorder that ultimately necessitated their return to the Zone of Interior.

Maj. (later Lt. Col.) Marvin F. Greiber [32] at the 234th General Hospital treated 40 cases of acute combat neuroses from this campaign and returned 39 or 97.5 percent to some type of duty. The more severe cases were treated with narcosynthesis and the milder ones with oral sedation and group psychotherapy.

Maj. Herbert S. Gaskill, MC, and Capt. Milton Korb, MC,[33] at the 20th General Hospital, treated a total of 143 cases of combat neuroses among Merrill's Marauders and the Mars Task Force. They reported an interesting observation on the return-to-duty rate in these two groups. In the Merrill's Marauders group, which consisted of approximately 3,000 well-trained men with stable personalities, there were 56 cases of combat neuroses; 62.5 percent were returned to duty after treatment. In the Mars Task Force group, with approximately 2,000 poorly trained men with premilitary histories of instability and maladjustments, there were 87 cases of combat neuroses; only 13.8 percent could be returned to duty after treatment. In the former group, anxiety states predominated, and in the latter, conversion hysterias were most common. This bears out the frequently made observation that the prognosis is much better when the reaction is an acute anxiety state and occurs in a stable personality than when the reaction is a conversion hysteria and develops in an unstable predisposed personality. The value of early intense treatment is also illustrated.

In a letter to Colonel Mays, 11 July 1945, Capt. Irving Chipkin, MC,[34] also reported some experiences with a few psychiatric combat casualties from Merrill's Marauders, who were hospitalized at the 69th General Hospital during August-September 1944. These patients were all admitted after the Battle of Myitkyina was over and Merrill's Marauders were being reorganized. Two types of combat disorders were noted. During the first month after the battle, August 1944, most of the cases seen were "anxiety and tension states [which occurred] on the basis of a psychopathic personality or an immature neurotic personality." Many were precipitated by combat and were not seen by a psychiatrist for some time after the onset of the illness. The symptoms described were anxiety, tension, startle reactions, nightmares, vivid combat dreams, insomnia, and irritability. Treatment consisted of individual psychotherapy, and narcosynthesis in selected cases. Captain Chipkin noted that "some were salvaged, but due to the pressure of work, too extensive therapeutic procedures were not used."

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[32] Letter, Maj. Marvin F. Greiber, MC, Chief of Neuropsychiatric Service, 234th General Hospital, to Maj. J. R. S. Mays, MC, Consultant in Neuropsychiatry, IBT, 1 Sept. 1945, subject: History of Neuropsychiatric Services, 234th General Hospital.

[33] Letter, Capt. Milton Korb, MC, 20th General Hospital, to Surgeon, U.S. Forces, India-Burma Theater, 11 Oct. 1945, subject: Historical Data on Combat Neuroses.

[34] Letter, Capt. Irving Chipkin, MC, Neuropsychiatrist, 14th Evacuation Hospital, U.S. Forces, India Burma, to Maj. John R. S. Mays, Consultant in Neuropsychiatry, Headquarters, U.S. Forces, IBT, 11 July 1945, subject: Report on Experience With Neuropsychiatric Patients Hospitalized From Merrill's Marauders.

During September 1944, the second month after the battle, the predominant clinical picture noted was of a conversion hysteria which developed in troops from the rear areas. The conversion symptoms appeared to be centered around residual complaints of gastric discomfort and fatigue, allegedly resulting from previous attacks of amebic dysentery or typhus fever. Most of these patients had made a poor combat adjustment and had extensive histories of hospitalization and sick call attendance for a variety of functional complaints.

Also during September, in the retrenchment and reorganization of the Marauders for future combat, unit commanders made every effort to unburden their organizations of inadequate and maladjusted individuals. Though patients were repeatedly returned to duty from the hospital, they were inevitably readmitted with such diagnoses as "Not yet diagnosed," "Flat feet," or "Administrative admission for the determination of physical fitness." The unit commanders absolutely refused to separate the soldiers administratively, and insisted that they be disposed of through medical channels. Most of this group were ultimately reassigned to limited duty with noncombat organizations. Approximately 60 percent of all these patients were evacuated to the Zone of Interior, 25 percent were returned to a limited type of duty, and 15 percent were returned to full duty.

This last group of cases illustrates the need for the Army to develop a rapid method for the administrative evacuation of inadequate and noneffective personnel during combat. The present method of presentation before an AR 615–368 or AR 615–369 board of officers is too cumbersome and time consuming a procedure to be of practical value during the stress of battle, and inevitably results in the unwarranted abuse of medical channels of discharge.

STATISTICS

In his official report,[35] Colonel Mays apologized for the paucity of statistical information presented and for his inability to offer any meaningful interpretation of the data. He made the following comments to explain some of the discrepancies in the data which were presented:

* * * * * * *

a. There was no Statistical Section in the Surgeon's Office during the first three years of its activity. The section was organized in November 1944 and began to function satisfactorily in June 1945. About this time, several of the key enlisted men engaged in the work were returned to the States, and were replaced by new men who required additional training on the job.

b. Neuropsychiatric statistical reports from the various hospitals, especially the smaller hospitals without psychiatrists, have been (and to a less extent still are) grossly inaccurate. This was due mainly to the fact that there was no uniform system of neuropsychiatric nomenclature used by all the hospitals. Some diagnoses received were so

[35] See footnote 16, p. 828.

unscientific that they were either unclassifiable or were misclassified by the statistical section.

c. There was a tendency for many medical officers to use the term "Psychoneurosis" as a trash basket diagnosis for patients who were returned to duty when no medical disease was found. This resulted in the false high rate of return to duty for this group during 1944 * * *.

d. Cases of mild neuroses and situational maladjustments which were admitted to hospitals and later returned to duty in 1944, were not admitted to hospitals in 1945, but were treated on a duty status in the Outpatient Clinic with group psychotherapy. Thus the patients that were admitted to neuropsychiatric sections were more severely ill, and relatively fewer were returned to duty than during the previous years.

* * * * * * *

f. It is believed that the "Monthly Statistical Report of Neuropsychiatric Section" inaugurated by the consultant has served to increase the accuracy and comprehensiveness of the statistical data. If the form is properly executed by the medical officers in the hospitals, the preparation of the composite theater neuropsychiatric report by the statistical section should be an easy task.

2. The * * * tables in this section include every item of statistical data of any importance in the files of the Surgeon's Office. The dates were laboriously pieced together by the writer from numerous sources, some of which were inaccurate. However, the tables represent the best that could be done under the circumstances, and are inclosed in the hope that they will be of benefit to someone.[36]

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[36] Colonel Mays' statistical report was excellent, but unfortunately was inaugurated too late. The following are calculated from his tabulated data, not included here: (1) Of all hospitalized psychiatric patients, 83 percent returned to duty for 1944 and 68 percent for 1945; (2) of all patients medically evacuated to the Zone of Interior, about 25 percent were psychiatric—the rate was a little higher in 1944 and a little lower in 1945; and (3) month by month, neurological patients accounted for 2 to 6 percent of all medical evacuees to the Zone of Interior.

Part V

THE ARMY AIR FORCES

CHAPTER XXIII

General Neuropsychiatric History

Douglas D. Bond, M.D.

While many problems of neuropsychiatry in the AAF (Army Air Forces) were common to all services, it is intended in this brief history to adhere to those problems with which the Air Forces had special difficulty and to show what differences in view were taken in the formation of Air Forces policy.

The emotional disorders of fliers were distinct in three ways from the emotional disorders of other categories of personnel. First, the anxiety was likely to be shown in a phobic way toward the aircraft, and many men if removed from flying in time needed no further treatment. Second, manifestations of anxiety had unusual importance in airmen in that they could so quickly be translated into dangerous or fatal consequences. Third, this necessitated the removal of airmen from aircraft or from battle conditions somewhat earlier in their neurosis than perhaps was necessary in other arms. A definite limit to combat operations was an administrative recognition of this fact, which was of great importance. Consequently, the administrative handling of emotional disorders was the most serious problem with which the air force psychiatrist had to deal. In general, it was both an enlightening and a disheartening task to delineate and teach the importance of emotion in the psychopathology of everyday living.

Probably because much of the air force psychiatrist's time was devoted to these psychiatric borderlands, the relationship of neuropsychiatry to administration was more clearly brought to focus. The conclusions emphasize the need for improvement not only in the service but also in civilian life in broadening psychiatric boundaries from the hospital to administration and the law. Much of this chapter is devoted to these interrelationships.[1]

[1] This chapter and those which follow on "The Army Air Forces" were reviewed by Dr. Benjamin Harris Balser in December 1966. Dr. Balser, a member of the *Editorial Advisory Board on the History of Neuropsychiatry*, who during World War II as a lieutenant colonel, Medical Corps, was chief of the neuropsychiatric sections of various Air Forces station and regional hospitals, commented as follows:

"This material reflects some of the ignorance of the neuropsychiatric branch of medicine in that period [1940–50] about human behavior and human reaction to stress, particularly as it applied to flying personnel. These chapters reveal the activities of outstanding men in psychiatry in their efforts to be constructive in meeting the problems presented during World War II. What they did and how they did it is fairly generally described, but a great many of the specifics have had to be eliminated. Time has given us the opportunity to see how many of the lessons were applied in later conflicts; namely, the Korean War and the conflict in Vietnam. The Army psychiatry program in the Korean War was an excellent example of the application of the lessons learned in World War II. Psychiatric treatment principles were instilled in frontline activities so that treatment was carried out by young battalion aid surgeons before evacuation of casualties to the division psychiatrists. The importance of the duration of the stress, group morale, rest and recreation, and

ORGANIZATION

On 7 December 1941, the chief representatives of psychiatry in the Army Air Forces were at the School of Aviation Medicine, Randolph Field, Tex. (where the teaching of psychiatry was aimed principally at selection procedures for aviation cadets on the selection lines at cadet centers) and in the station hospitals. No actual account is available as to how many psychiatrists were in the Army Air Forces then, but they were part of no organized program. It was not until the first of February 1943, when the increasing psychiatric problems in the Army Air Forces forced the establishment of a Psychiatric Section in the Professional Care Branch of the Professional Division in the Air Surgeon's Office, that a thorough organization was possible. At that time, the Professional Care Branch was reorganized into Medical, Surgical, and Psychiatric Sections. On 9 September 1943, the Professional Care Branch was designated as the Medical Services Division with four branches—Medical, Surgical, Psychiatric, and Convalescent Training.

On 11 July 1944, the Medical Services Division was redesignated Professional Division, and psychiatry became one of the six branches. The functions and duties of the chief of the Psychiatric Branch were outlined as follows:

1. Coordinate, organize, develop, and maintain a psychiatric program in the Army Air Forces.
2. Coordinate, direct, and supervise psychiatric clinical investigation in the Army Air Forces.
3. Inspect hospitals and medical installations, evaluate the quality of the psychiatric services, and recommend the assignment of specialists in psychiatry.
4. Maintain liaison with appropriate civilian and military agencies.
5. Serve as psychiatric consultant to the Army Air Forces.
6. Maintain liaison with the Public Relations Branch, AAF, and coordinate public relations policy as related to psychiatry.

Maj. (later Lt. Col.) John M. Murray, MC, was chief of the Psychiatric Section from 1 February 1943 to 13 October 1944. On that date, he was replaced by Lt. Col. Donald W. Hastings, MC, who remained until his separation from the service in August 1945. Colonel Hastings was replaced

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immediate treatment was kept in the foreground in dealing with psychiatric casualties. Contrasted with World War II evacuation of troops, this group in Korea had approximately one-seventh of that number evacuated.

"In the Vietnam conflict, not only are these same principles being applied, but a limited tour of duty has been specified and adhered to. The climatic conditions, the battlefield involvement, and the living conditions in Vietnam are not only primitive but almost intolerable in terms of discomfort. Yet here too, as in the Korean War, the psychiatric casualty percentage has been very low.

"In the U.S. Air Force engaged in both Korean and Vietnam wars, these lessons were similarly applied.

"It is rewarding and encouraging to see that the lessons learned in World War II and described in these chapters were applied to two later wars with a high degree of success."

by Maj. Douglas D. Bond, MC, who was separated from the service in October 1945. At that time, the branch was abolished.

Dr. Edward A. Strecker, president of the American Psychiatric Association, was appointed Special Consultant to the Secretary of War for the Army Air Forces and was assigned to the Office of the Air Surgeon on 5 June 1943. He maintained an active interest, participated in several long continental inspection trips, and accompanied Maj. Gen. Norman T. Kirk, The Surgeon General, and Maj. Gen. David N. W. Grant, the Air Surgeon, on an inspection of the neuropsychiatric services in the European theater, in the spring of 1944. He did much to aid policy formation and to preserve psychiatry's hard-won gains in the Army Air Forces.

Special mention should be made of the service rendered the psychiatric program by Col. William P. Holbrook, MC, chief of the Professional Division. Without his support at many critical times, there would have been no program. He saw important psychiatric issues often more clearly than did many psychiatrists. He early understood the importance that psychiatry was to have and did all in his power to encourage and foster its growth. He did much to formulate the policy on psychiatric diagnosis, disposition, and treatment and was solely responsible for keeping open the two psychiatric training and treatment facilities (the Don Ce-Sar Hospital, St. Petersburg, Fla., and the Convalescent Hospital, Fort Logan, Colo.) which were the centers of much of the best psychiatry in the services. As a member of investigating teams from the Inspector General's Department, he made important constructive criticisms of the operation of the convalescent hospitals.

In the Air Forces, the difficulties surrounding the understanding of psychiatry were not different from those in civilian life. These are resistances to psychiatry everywhere, that are dispelled only with great difficulty. An air force consultant was met upon his arrival overseas with the remark, "We don't want any damned psychiatrist over here making our boys sick." [2]

In the Air Forces, the particular sentiments that were widespread were, first, that psychology was a science dealing with the normal personality and that psychiatry was one which dealt only with the abnormal; second, that fliers suffered from "flying fatigue" because of the peculiarities of their occupation apart from their emotions, and almost all emotional disorders were called "flying fatigue"; and third, that airmen should not be "stigmatized" by being labeled neurotic. It might be said that psychiatry was approached tentatively. This situation was not improved by the great variance with which different psychiatrists viewed selection procedures, disposition policies, and diagnosis.

[2] When the first draft of this history was being written, in 1945, a distinguished Air Forces surgeon just returned from overseas remarked with evident enjoyment that there had been no psychiatric problem in his area. Threats alone had been enough to abolish it. He was totally unaware that hundreds of fliers upon return from his area became patients in convalescent hospitals and that others may have caused needless loss of life through their anxiety.

Possibly for these reasons, a proposed psychiatric program, submitted by Major Murray [3] to the Air Surgeon, received neither backing nor comment. In his memorandum, Major Murray outlined the principal problems then faced by psychiatry and offered plans for their solution. He stressed five specific topics: (1) Selection of Aviation Cadets, (2) Consultation Service in the Technical Training Command Replacement Centers, (3) Neuroses and Fatigue Syndrome in Fliers, (4) Psychiatric Problems at Smaller Stations, and (5) Problems of the Future.

On the selection of aviation cadets, Major Murray stated that the psychiatric examination, ARMA (adaptability rating for military aeronautics), was the best available selection method at that time, but its apparent failure resulted largely from its hasty application and from lack of a special situation for the observation of cadets. He recommended, therefore, that the staff of psychiatrists at cadet classification centers be enlarged and that the aviation medical examiners be instructed to follow more rigid standards, and that emphasis be placed upon a more prolonged selection procedure, which would include the psychiatric observation of cadets throughout preflight and primary flying training period. This lack, from the psychiatric viewpoint, was the most vulnerable part of the whole selection procedure and its correction had been advocated widely by almost all psychiatrists.

Major Murray further recommended that traveling consultants be made available to flying instructors and flight surgeons in training centers to coordinate the work of psychiatrists within the command and to encourage extramural professional work. This also would provide a followup of cadet classification procedures and a control on their validity.

The establishment of a consultation service, in charge of a neuropsychiatrist, was proposed to fulfill the following functions in the Technical Training Command:

1. Assist the newly inducted soldier and the cadet eliminated from flying training in making the satisfactory adjustment to military life.
2. Improve the relationship between medical officers and the line and make the medical officer's recommendation more efficiently carried out.
3. Recommend for immediate disposition those men who cannot function adequately or who present a hazard to other men.
4. Provide psychiatric, psychological, and social data to officers, courts-martial, and disposition boards.
5. Work in conjunction with the Red Cross to aid soldiers who are discharged in making the transition back to civilian life.

Working independently against considerable opposition, Capt. Lewis L. Robbins, MC, had established such a unit at Drew Field, Tampa, Fla.,

[3] Memorandum, Maj. John M. Murray, MC, Department of Neuropsychiatry, First Central Medical Establishment (Sp.), for the Air Surgeon, 8 Apr. 1943, subject: Plans and Survey of Psychiatric Problems in the Army Air Forces.

in April 1943.[4] In May, a second unit was established at Sheppard Field, Tex., by Major Murray. These units were forerunners of the widespread use of such units in continental Air Forces.

The remainder of Major Murray's program, devoted to the emotional disorders in fliers as a result of combat, recommended that each combat air force be assigned a highly competent consultant who would be responsible for the organization of rest camps or homes close to the field of operation. Recognizing that greater numbers of psychiatric casualties would soon arrive in the United States, Major Murray also proposed that these casualties be grouped under a psychiatrist's care in the general medical wards of air force hospitals, with the establishment of centers for the treatment of more serious neuroses as the demand increased.

Major Murray also emphasized the shortage of trained personnel as follows:

> At present the AUS [Army of the United States] has approximately 1,100 neuropsychiatrists on active duty. The Office of the Surgeon General feels that this number will be quite inadequate to deal with the number of psychiatric problems which will arise as the war goes on. The Air Forces have been assigned 200 of these 1,100 psychiatrists. In view of the special psychiatric problems associated with flying, it is all too clear how grossly inadequate will be the small number when the full impact of the war strikes. With this future possibility in mind, the following measures are recommended:
>
> 1. Recruiting.
> 2. A more equitable distribution of the 1,100 men to the Air Forces.
> 3. Program of training.
>
> At present the Air Forces needs to keep an eye to future developments, or one day the need for neuropsychiatrists will be more than extremely acute. We should begin now to set the stage for a later training program to be activated as needs arise. Tentative formulation of that program would include * * * the focusing of neuropsychiatric casualties returned to this country at a given center. The second objective would be to staff that hospital with excellent neuropsychiatrists whose special training has been in the field of acute psychoneurosis. These men should likewise be qualified as excellent teachers in this field * * *. Neurologists, administrators, and closed ward officers are rarely good psychotherapists, or personnel consultants. If and when the acute need for this type of man arises, we will be forced to turn to younger men and from them expect the greatest help in accomplishing some solution. * * * psychiatrists at work with these problems will need numbers of men working under them, and having a background of training in psychology, social work, personnel work, and so forth. * * * the Army should recognize the need for this special type of worker and accord these men the status of specialists.

Had this plan been accepted and put into operation immediately, the development of psychiatry would have been smoother and greater. As it was, many provisions mentioned forced their way into being as conditions demanded, but real coordination was lacking. The first of these was provision for the returning combat veteran who was to become the dominant problem in AAF medicine.

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[4] The work of this unit, which had a long and successful service, was reported by the chief social worker, S. Sgt. Bertram M. Beck, and by Captain Robbins, in "Short-Term Therapy in an Authoritative Setting," published in 1946 by the Family Service Association of America.

In the summer of 1943, the problem of the returned combat veteran became of pressing importance and more and more time and thought were given to his care. This new demand forced two new developments—first, a method of sorting and examining the returnees; second, the establishment of a chain of AAF convalescent hospitals for men who needed specialized care.

REDISTRIBUTION CENTERS AND CONVALESCENT HOSPITALS

On 16 August 1943, two redistribution stations were established under the AAF Redistribution Center,[5] which had been newly formed for the care of these men. The first of these stations was located at Atlantic City, N.J., and the second at Miami Beach, Fla. In November 1943, the third station was formed at Santa Monica, Calif., and the fourth in November 1944 at Santa Ana, Calif. The mission of the medical examiners at these stations was to determine either the fitness of the returnee for future ground or flying duty in combat or in the United States, or his need for hospitalization.

The facilities for taking care of the war-weary flier were inadequate as most men needing treatment were emotional casualties, not sick enough to require traditional hospital care and yet too sick to perform full military duty. These men created the most serious and difficult medical and administrative problem with which the AAF medical service had to deal. After a delay of 9 months, WD (War Department) Circular No. 165, 19 July 1943, authorized the Army Air Forces to establish medical facilities for the care of returned airmen. Under these provisions, convalescent centers were established on 18 September 1943, at Coral Gables, Fla.; Buckley Field, Colo.; San Antonio Aviation Cadet Center, Tex.; Santa Ana Army Air Base, Calif.; Maxwell Field, Ala.; Mitchel Field, N.Y. (figs. 86, 87, and 88); Fort George Wright, Wash.; and Jefferson Barracks, Mo.[6]

As these installations were under six separate commands, uniform administration and professional care were impossible. This was corrected in the spring of 1944 by consolidation under ASC (Air Service Command). Separate convalescent hospitals were authorized [7] about one month later and included installations at Fort Logan, Colo., Albuquerque, N. Mex., St. Petersburg, Fla., Spokane, Wash., and Nashville, Tenn.

There had been a strong and widespread belief that rest alone with supportive occupational therapy and good convalescent care would suffice to handle most emotional problems. Colonel Murray had strongly opposed this attitude; at the end of October 1943, he received the active support of Lt. Col. Roy R. Grinker, MC, who, just returned from the North African

[5] Unless otherwise indicated, this section is based on the history of the Medical Department, AAF Redistribution Center, AAF Personnel Distribution Command, October 1943–December 1944.

[6] Link, Mae Mills, and Coleman, Hubert A.: Medical Support of the Army Air Forces in World War II. Washington: U.S. Government Printing Office, 1955, p. 74.

[7] War Department Circular No. 140, 11 Apr. 1944.

FIGURE 86.—Neuropsychiatric staff, Base Hospital, Mitchel Field, January 1945. Left to right: Capt. Louis Samuel Chase, MC, Capt. Harold M. Wolman, MC, Maj. David B. Davis, MC, and Lt. Robert S. Mumford, MC.

theater, had brought frontline psychiatric experience for the first time to the air force in the United States. In the same month, the book written by Colonel Grinker and Capt. (later Maj.) John P. Spiegel, MC, entitled "War Neuroses in North Africa: the Tunisian Campaign," was published by the Josiah Macy, Jr. Foundation. As far as is known, this was the first comprehensive work published by an American psychiatrist in World War II. This book had a profound effect for it introduced dynamic concepts into the understanding of war neurosis and exploited the use of Pentothal Sodium (thiopental sodium) as a tool for better understanding and treatment. From this time forward, Colonel Grinker played a prominent role in AAF psychiatric policy and therapy. He substantiated Colonel Murray's earlier prognostications as to the frequency of the emotional problems to come and the need for definitive treatment, and submitted Pentothal Sodium as the key to effective psychotherapy of short duration.[8]

The size of the problem created by the emotional disorders among returnees and the difficulties in the management of this problem are well

[8] For an excellent presentation of the psychopathology of the anxiety reactions in returnee fliers, *see* Grinker, Roy R., and Spiegel, John P.: Men Under Stress. Philadelphia: The Blakiston Co., 1945.

FIGURE 87.—Officers, nurses, and Wacs of the Neuropsychiatric Service, Base Hospital, Mitchel Field, January 1945.

given in the history of the Medical Department, AAF Redistribution Center, AAF Personnel Distribution Command, October 1943 through December 1944:

OPERATIONAL FATIGUE:

Of all the medical problems arising in connection with the processing of returnee personnel at Redistribution Stations, the syndrome of "operational fatigue" was found to be the most frequent of all significant disorders diagnosed; and the standardization of the diagnostic criteria, the classification, and the medical disposition of these cases presented greater difficulty than any other single medical problem encountered.

The term "operational fatigue," as used herein, refers to an "anxiety" or "reactive" state of varying degree, which is the result of emotional stress encountered in combat. The intensity or degree of operational fatigue may vary from mild tension to severe emotional disturbance. Likewise its manifestations may appear only occasionally (episodic) or they may be constant, again depending on the degree of the syndrome. It is partly because of these variables in the clinical manifestations and partly because of the varying interpretation of the symptoms made by different medical officers that so much difficulty has been encountered in the medical management of these cases.

In the very beginning, not only was this syndrome recognized as a major problem of modern warfare, but it was evident that operational fatigue in all its aspects would be a major problem in the medical processing of returnee personnel. Accordingly, pro-

FIGURE 88.—Officers and technicians of the Neuropsychiatric Service, Base Hospital, Mitchel Field, January 1945.

vision was made for inclusion in the examining line of a sufficient number of medical officers trained in neuroses and mental disorders to examine returnees for the purpose of detecting operational fatigue, since it was appreciated that this disorder could easily be missed by personnel not so trained. Flight surgeons with oversea experience were not at the time obtainable in the number desired, and so medical officers trained in psychiatry were used for this purpose.

At the outset, instructions and information regarding the diagnostic criteria for operational fatigue were verbal. On 16 December 1943, however, a directive [SOP (Standing Operating Procedure) No. 6] was published and put into effect. This directive defined and classified the various degrees of operational fatigue, and the disposition to be made of each type. The disposition recommended depended upon the severity of the case. On 23 December, SOP No. 8 was issued modifying the disposition of certain gradations of the mild type.

A preliminary study of the incidence of this condition in the first 2,583 men examined in all stations showed the following wide discrepancy, which the directives just mentioned tried to correct: Of 898 men examined at Station No. 1, 323, or 36 percent, were considered as having operational

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fatigue; of 1,502 men examined at Station No. 2, 24, or 1.6 percent, were considered as having operational fatigue. The two stations, however, coincided quite well on their gradation of operational fatigue; the mild form constituted at least one-half the total cases, the moderate about one-third, and the severe about one-tenth.[9]

It was felt by Headquarters, Army Air Forces, that the classification adopted and in use by the Redistribution Center resulted in the hospital treatment of too many cases. Thus, at a conference at the Office of The Air Surgeon, Washington, D.C., about mid-January 1944, a committee was appointed to meet in Atlantic City to study the question of operational fatigue and to make appropriate recommendations for its diagnostic classification and disposition. The results of the study made by this committee were presented in an official report.[10] Certain members of this committee [11] continued to study the matter in the Office of The Air Surgeon, and on 15 February 1944, its report was published in a letter from the Office of AC/AS [Assistant Chief of the Air Staff], Personnel.[12] The method of classification set up in this report and the instructions for disposition of the three types of operational fatigue were put into effect in the medical processing at Redistribution Stations.

The effect of this new classification was to reduce sharply the number of cases sent to AAF Convalescent Hospitals for further treatment and to increase the number of men judged not fit for flying duty, but fit for ground duty. Early in April 1944, it became apparent that many airmen were being returned to duty on nonflying status or sent home on sick leave when they should more properly have received hospital treatment. This fact was brought to the attention of The Air Surgeon who directed modification in the policy established by the committee, so that the more severe cases of those classified as "mild" operational fatigue would be considered as hospital cases and so disposed. In accordance with these instructions, a directive was issued to the Commanding Officers of the Redistribution Stations to modify the original recommendations made by the committee.

During the period of 1 January to 1 April 1944, there were significant developments bearing on operational fatigue cases, which resulted in establishment of the current policy governing treatment of such cases. There was more or less general dissatisfaction among returnees suffering from operational fatigue with the treatment given at the AAF Convalescent Centers. * * * This was brought to the attention of the Air Surgeon, and as a result, the Convalescent Hospital, Don Ce-Sar, St. Petersburg, Fla., was created and especially staffed for the treatment of operational fatigue cases referred from Redistribution Stations Nos. 1 and 2. The AAF Convalescent Hospital, Fort George Wright, Wash., was designated to receive and treat such cases as were referred from Redistribution Station No. 3.

* * * * * * *

By July 1944, experience had proved that the original plan for theoretical classification of operational fatigue cases into three categories—mild, minimal, and severe—by the examining medical officer at the Redistribution Station was unsuccessful. Observation and study of such cases at Don Ce-Sar revealed that mild cases could not be satisfactorily screened during a necessarily short examination in a medical processing line, but rather required study in a hospital for a period of at least one week. Thus, it was

[9] Annual Report, Medical Department Activities, AAF Redistribution Center, 1943, p. 12.

[10] Report of Conference on Operational Fatigue, Atlantic City, N.J., 25 Jan. 1944.

[11] This committee consisted of Col. Wood S. Woolford, MC, Colonel Holbrook, Lieutenant Colonels Murray and Grinker, Lt. Col. (later Col.) Howard A. Rusk, MC, and Major Hastings.

[12] Letter, Headquarters, AAF, to Commanding Officer, AAF Redistribution Center, 15 Feb. 1944, subject: Diagnosis and Disposition of Operational Fatigue.

decided that the diagnosis of operational fatigue would not be made at all at Redistribution Stations. Any returnee suspected of suffering from operational fatigue was transferred as a patient to an AAF Convalescent Hospital with the statement "No disease; administrative admission for the determination of physical fitness." In this way, all cases of suspected operational fatigue were referred to AAF Convalescent Hospitals for observation, diagnosis, and treatment.[13]

In summary, the following general statements may be made in regard to operational fatigue and allied psychiatric problems occurring in AAF personnel returned from combat:

a. The largest AAF psychiatric problem is that concerned with AAF personnel returned from combat theaters. Twenty to twenty-five percent of all AAF personnel returned from combat require observation and treatment in a hospital.

b. Adequate psychiatric care for such patients is receiving first priority as to facilities and trained personnel.

c. The AAF Convalescent Hospital is the place for treating emotional disturbance observed in personnel returned from combat. Each such hospital maintains a psychiatric service. The Convalescent Training Program developed in each of these hospitals is utilized as an adjunct to the definitive psychiatric therapy.

d. No AAF Convalescent Hospital is devoted exclusively to the care of psychiatric patients. From the standpoint of morale and successful therapy, segregation of these patients proved to be definitely undesirable. [At the end of the war there was no unanimity on this opinion. Probably the system was less important than the quality of the personnel.]

e. A uniform treatment program for the care of such cases is being developed as much as is possible. In this connection, one AAF Convalescent Hospital maintains an enlarged psychiatric staff for the purpose of instructing medical officers in the plan of psychiatric therapy to be employed.

f. There are many cases of operational fatigue (perhaps 70 percent of the total) which are mild and do not require definitive psychiatric treatment.

g. Operational fatigue is not diagnosed at AAF Redistribution Stations. When the medical examination of returnee personnel at Redistribution Stations indicates that there is a possibility of operational fatigue being present in the examinee, he is referred to an AAF Convalescent Hospital for further observation and disposition.

Among the convalescent hospitals were two that were psychiatric centers. As outlined in the paragraphs just quoted, the need for a center specializing in definitive psychotherapy and teaching forced the establishment of such a center in the spring of 1944 at the Don Ce-Sar Hotel, St. Petersburg, Fla. This center was organized and the first courses for medical officers were taught by Lieutenant Colonels Murray and Grinker, and Major Hastings, in March 1944. Major Hastings at this time was the neuropsychiatric consultant to the AAF Personnel Distribution Command following his return from the European theater. Colonel Grinker assumed the position of chief of Professional Services and established and maintained medical and teaching policy. The establishment of a hospital exclusively for the treatment of neuroses was a considerable achievement in the face of strong opposition which took the attitude that such a hospital would stigmatize air force personnel too much. This attitude never really changed.

[13] Letter, Headquarters, AAF, to Commanding General, AAF Personnel Distribution Command, 19 July 1944, subject: Diagnosis and Disposition of "Operational Fatigue" Cases.

The success of this innovation was recognized in a report by the Inspector General in conjunction with five civilian consultant psychiatrists in December 1944. This hospital was the only one selected by name for mention.

> The men who have broken under stress, especially in combat, and as the result of unusually hazardous duty in theater of operation, not only deserve treatment but are likely to benefit therefrom. It is probable that, if the statistics of treatment results could be broken down to show results in this category, they would be far more encouraging than the figures cited. A good example of treatment for patients in this category is seen at the Air Forces Convalescent Hospital at St. Petersburg, Fla. Most of the patients in this installation returned to the United States after their operational duties on rotation and were sent from redistribution stations to this hospital for treatment. Ninety-eight percent of the officers returned to duty; 70 percent of these to full flying duty. Of the enlisted personnel, 25 percent returned to full flying duty, 55 percent to ground duty, and 20 percent were discharged. * * * It appears that a properly equipped and staffed installation, giving its entire attention to therapy, can produce valuable results in the treatment of men who have broken down under the stress of hazardous circumstances or combat duty. It is reported that the Army has several excellent hospitals overseas specializing in the treatment of these severe psychoneurotic disorders.[14]

On 24 September 1944, Colonel Hastings submitted to the Air Surgeon a plan for the care of psychiatric patients in AAF convalescent hospitals. This plan stressed the establishment of large psychiatric services in convalescent hospitals to enable psychiatrists to work more closely with medical officers from other services and to avoid the "stigma" of hospitalization in a psychiatric hospital. Provision was made to establish a training and research center at one of the hospitals. The plan was enthusiastically approved and put into effect. Research was begun at the Don Ce-Sar Hospital.

In April 1945, because of the success of the Don Ce-Sar Hospital and the heavy demand for more trained physicians, the Air Surgeon established a second teaching and treatment center in the Convalescent Hospital, Fort Logan. Colonel Murray, who had recently returned from the Southwest Pacific Area, was assigned as chief of the Professional Services. Both hospitals were successful and were the outstanding psychiatric hospitals of the Air Forces and, many think, in the entire service. Both were outstanding training centers and the teaching was of an extraordinarily high caliber. Most medical officers who attended the courses or worked on the staff considered that experience the most profitable of their Army careers. The striking quality of both hospitals was that they were run by the physician for the patient, and administrative detail and paperwork were at a minimum for medical officers.

No reliable comprehensive assessment of the success of treatment was possible for two reasons. First, the lasting success of the treatment of emotional disorders depended upon the disposition. Second, the disposition

[14] Memorandum, Air Surgeon for Assistant Chief of Staff, G–1, 18 Dec. 1944, subject: Psychoneurotics.

varied greatly with the progress of the war and with administrative policy, with little regard to the needs and capacities of the individual patient. It was certainly true, however, that, as time went on, fewer men were returned to flying duty than mentioned in the quoted paragraph on the Don Ce-Sar Hospital (p. 862). Also, a certain proportion of men relapsed and became problems again. The use of Pentothal, which was extensive at first, diminished, and the physicians depended more upon psychotherapy alone than upon the use of any drugs. Individual psychotherapy proved the cornerstone for successful treatment in AAF hospitals.

Although these two hospitals could give rather remarkable individual attention because of their organization, the high quality of their staffs, and their positions as teaching centers, this was certainly not true of most convalescent hospitals, in which the care was much more casual. The problem became so large and the administration so complex that very gross errors were made in administration. For many months, there was one psychiatrist for 150 to 400 returnee patients at Cochran Field, Ga. Camp Davis, N.C., proved to be a poor choice as a site for a convalescent hospital because it was seriously lacking in facilities and was so isolated that many men would have preferred to return overseas than to go there. When conditions were brought to General Grant's attention, he closed the field 5 months after it opened.

The difficulties that arose in the convalescent program were well detailed in a memorandum for the Deputy Chief of Staff, subject: "Reconditioning and Convalescent Program in Army Hospitals," 30 July 1945. As an outgrowth of this report, a clarification of disposition policy was issued.[15] This letter advised that men not be returned to duty unless capable of "*continuously* performing an effective day's work in the military service."

The number of men returning from overseas with emotional disorders reached its peak in May and June 1945. From that time, the patient load diminished sharply, and with the termination of hostilities in the Far Eastern theaters, the convalescent hospital program began a drastic contraction.

OVERSEAS THEATERS

European Theater

Eighth Air Force.—The psychiatric activities of the Eighth Air Force[16] were largely centered in a special organization created by the Surgeon, Eighth Air Force, in July 1942, known first as the "Eighth Air Force Provisional Medical Field Service School," redesignated in November 1943 the "Eighth Air Force Central Medical Establishment," and finally in

[15] AAF Letter No. 25–75, 5 Sept. 1945, subject: Clarification of Disposition Policy in AAF Hospitals.
[16] Unless otherwise indicated, this section is based on the Medical History of the Eighth Air Force, 1944.

August 1944 the "First CME (Central Medical Establishment)." [17] Based upon the experience of the Royal Air Force, this unit was divided into a Physiology Section devoted to the indoctrination of aircrews in high altitude flying and to the development and testing of equipment of high altitude flight, and a Psychiatry Section concerned primarily with emotional casualties among combat aircrews.

The medical officers of the Psychiatry Section served as examiners for, and members of, the Central Medical Board. Although most problems were emotional, many men with structural defects were seen, and a consultant in internal medicine was added to the department when the caseload became heavy. The chief of the section served also as consultant in neuropsychiatry to the Eighth Air Force and was responsible for advising on policies affecting the mental health of the command and for conducting special studies on therapeutic and preventive measures. He also established and maintained relations with the neuropsychiatric consultants in the Royal Air Force, who were extremely helpful in matters of policy and special examination.

Captain Hastings became chief of the Psychiatry Section in July 1942 and remained in this capacity until December 1943 when he was recalled to the United States to become the consultant in neuropsychiatry to the AAF Personnel Distribution Command. He was replaced by Captain Bond who remained until June 1945. Capt. (later Maj.) Arthur M. Bassett, MC, was the consultant in internal medicine to the Central Medical Board from January 1944 to May 1944 when he became chief of the Professional Division in the Office of the Surgeon, Eighth Air Force. He was replaced by Capt. (later Maj.) Howard B. Burchell, MC, who remained until the unit was disbanded in July 1945.

The Eighth Air Force became the largest in the Army Air Forces and enjoyed the advantage of fixed, closely placed bases from which to operate. These facts gave the Central Medical Board two unique advantages: A large amount of case material was provided and the centralization allowed accurate followup studies. Throughout the board's operation, the emotional casualties bore a striking relationship to the aircraft loss rate.[18]

During the early months of operation, the incidence of emotional casualties was higher than during any other phase of the war. Various factors, operative at this time, undoubtedly had a bearing upon this high incidence. The aircraft loss rate was higher than in any following period. There were long periods of inactivity, replacements were almost nonexistent, and there was no established tour of duty. Two studies on morale during the latter part of this period by CME members aided materially in the establishment of a definite tour early in the spring of 1943.[19] The

[17] Link and Coleman, *op. cit.*, p. 668.

[18] Project No. 33 Report, Headquarters, First Central Medical Establishment (Special), subject: Statistical Survey of Emotional Casualties of the Eighth Air Force Aircrews, 25 May 1945.

[19] (1) Hastings, D. W., to Surgeon, Eighth AF, March 1943, subject: Morale in 8th AF Air Crews. (2) Wright, D. G., to Surgeon, Eighth AF, March 1943, subject: Morale in 8th AF Air Crews.

incidence of emotional casualties dropped and morale improved markedly in the late fall of 1943 and the early spring of 1944, with the great influx of new crews and a sharp fall in the attrition rate.

During the first phase of the war, the psychiatric activities were focused on efforts to establish a combat tour of stipulated duration, to indoctrinate medical officers in the detection and management of emotional casualties, and to provide reasonable periods and facilities for rest. The establishment of a definite tour in the spring of 1943 was of great assistance in preventing emotional casualties and in protecting men who were already ill from becoming fully incapacitated. This measure largely accounted for the less serious disintegrations seen among airmen than among infantrymen. A course, designed for the indoctrination of medical officers newly arrived in the theater, was given periodically from August 1942 through March 1944. This course, taught principally by CME members with the aid of various air force and theater consultants, did much to make operation more uniform. In all, 402 medical officers attended. Much of this course was devoted to medical and administrative management of the emotionally disturbed flier.

A serious problem in all theaters was the lack of central policy for the administrative handling of fliers who had completed few missions before becoming afraid to fly. Many of these men had few bodily symptoms of anxiety and needed little in the way of treatment other than removal from flying. Several who were removed from flying were promoted over the heads of those who continued; this raised serious discontent. To prevent such inequities, Eighth Air Force Memorandum No. 75–2 was issued on 23 June 1943, reissued on 23 August and 24 December 1943, and again as Memorandum No. 35–6 on 25 March 1944. The Central Medical Board was charged by these directives to decide which men should be handled administratively—a group unfortunately called "lack of moral fibre," and which men should be handled medically—a group called "operational exhaustion." Memorandum No. 35–6 abolished these terms, replacing them by an inclusive one, "anxiety reaction," the disposition being determined by the amount of hazard to which the patient had been subjected. As a result of these memorandums and of the examination of the men before administrative action, the Central Medical Board developed a punitive reputation.

The administrative position was never satisfactory and posed two serious problems. The first was the board's lack of disposition power. The original directives pertaining to the disposition of emotional casualties put the board in a consulting capacity only, leaving the final disposition authority in the hands of the group commander. This procedure was never changed and, as the men had to return to their groups, largely nullified the board's usefulness to the groups. The second problem, intimately connected with the first, was the policy demanding the division of cases into "administrative" and "medical" categories. As medical and administrative con-

siderations were often conflictive in each case, this led to confusion and dilemma.

A similar problem faced by the Army Air Forces as a whole was the difficulty of returning to the United States men no longer fit for flying for either emotional or physical reasons, who were not incapacitated for ground duty. Lacking an AAF hospital, many men hospitalized for illnesses that incapacitated them for flying were promptly returned to duty. This situation became acute and was not improved until the spring of 1944 when permission was obtained for the administrative rotation of these men to the United States, upon recommendation of the Central Medical Board, under WD Circulars Nos. 127 and 372, dated 29 May 1943 and 13 September 1944.

In the fall of 1942, manor houses were acquired under the auspices of the Red Cross for use as rest homes for combat crewmen. These centers were excellently run, had abundant facilities, and were staffed by Red Cross workers. They filled a very real need and were widely appreciated by the men who visited them. Regulations were kept at a minimum in these homes, and personal freedom and the wearing of civilian clothes were accentuated. Although this was an ideal arrangement, the capacity of these facilities was totally inadequate.

In March 1943, with the active aid of Lt. Col. (later Col.) Lloyd J. Thompson, MC, theater consultant in neuropsychiatry, a unit for prolonged narcosis was established at the 5th General Hospital under the direction of Lt. (later Capt.) Bernard C. Glueck, Jr., MC, of the Central Medical Establishment. The purpose of this program was to treat men with combat neuroses for return to combat. In March 1944, the unit was moved to the 347th Station Hospital, which was replaced in May by the 97th General Hospital, to bring it closer to the CME (figs. 89 and 90). This unit was singled out for special recommendation in a memorandum written by The Surgeon General, the Air Surgeon, and Dr. Strecker.

> We wish particularly to commend the splendid professional treatment and utilization of modern special techniques including narcosis and insulin therapy being given to combat crew personnel at the 347th Station Hospital, Wheatley. The Medical Aviation Teaching Treatment Center (known as CME) at High Wycombe likewise deserves particular commendation. The Air Force Rest Centers, one of which was visited, was serving a very useful purpose in the prevention of combat fatigue and it is recommended that these facilities be expanded.[20]

In all, 311 patients were treated and followed for 6 to 18 months. Early results seemed promising and the study was continued until May 1944. Later studies showed that the promise of the early results was not fulfilled and that, at best, not more than 13 percent of the treated fliers were able

[20] Memorandum, for Chief of Staff through Deputy Theater Commander, ETOUSA, 20 Mar. 1944.

FIGURE 89.—Psychiatrists at AAF Neuropsychiatric Center. Left to right: Capt. Henry H. Brewster, MC, Capt. Bernard C. Glueck, Jr., MC, Dr. Edward A. Strecker, and Col. Lloyd J. Thompson, MC.

to return to efficient combat duty. This work has been extensively reported.[21]

In January 1944, the majority of beds in two small rest homes were for the psychiatric section of the Central Medical Establishment. A CME psychiatrist was in residence for the first 6 months, but from July on, patients were transported to the Central Medical Establishment for interviews, and necessary supervision was maintained by frequent visits. Although Pentothal was used as an adjunct to treatment as early as March 1944, proper facilities for its use were not obtained until the early fall of that year. Subsequently, Pentothal Sodium was used extensively at the Central Medical Establishment and in minor amounts by flight surgeons in the field. Its use was considered beneficial in making mental mechanisms apparent for teaching purposes, for giving insight into somatic complaints, and for quickly indoctrinating patients in associative techniques. Relatively few men, however, were returned to combat duty. The use of the rest homes was a real convenience, allowing the housing of men with combat neuroses in a pleasant environment and avoiding the need for hospitaliza-

[21] (1) Hastings, Donald W., Wright, David G., and Glueck, Bernard C.: Psychiatric Experiences of the Eighth Air Force, First Year of Combat (July 4, 1942—July 4, 1943). New York: Josiah Macy, Jr. Foundation, 1944. (2) Hastings, D. W., Glueck, B. C., and Wright, D. G.: Sodium Amytal Narcosis in the Treatment of Operational Fatigue in Combat Air Crews. War Med. 5: 368–372, June 1944. (3) Erb, Capt. Howard R., and Bond, Maj. Douglas D.: Sodium Amytal Narcosis in the Management of Emotional Disorders of Combat Flyers. (Professional paper approved on 17 Apr. 1945.)

FIGURE 90.—Psychiatrists at AAF Neuropsychiatric Center, 97th General Hospital, near Oxford, England. Left to right: Col. Lloyd J. Thompson, MC, Capt. Morris Schwartz, MC, Lt. Col. Linn F. Cooper, MC, Maj. Douglas D. Bond, MC, and Maj. George A. Billinghurst, MC.

tion in all but a very few instances. It also allowed a prolonged period of observation of the men in their relations to a group, which added materially to the final disposition judgment.

Sodium Amytal (amobarbital sodium) was used rather extensively in the field to handle acute reactions and to provide a sure rest after harrowing experiences. No reliable record of this measure was made, but the impression gained by many was that it possessed real merit.

A number of special studies, in addition to those mentioned, were made by members of the psychiatric section and forwarded to the Surgeon, Eighth Air Force. These included studies on successful airmen, the reclassification of personnel failures, the values of a rest home in the treatment of anxiety reactions, patients given a nonpsychiatric diagnosis, and the predictability of the Rorschach test for success in combat flying.

Ninth Air Force.—The organization of the Ninth Air Force psychiatric service was very similar to that of the Eighth Air Force with the establishment in March 1944 of the Ninth Air Force CME, later known as the Third CME. Upon advice from the Eighth Air Force and from their own experience, arrangements were made for a member of the A–1 (Appointment and Procurement) Section to attend all meetings to facilitate the disposition of men examined. Although their policy was much like the Eighth's, this innovation greatly facilitated their operation and made them a more effective help to Ninth Air Force units. Capt. (later Maj.) Alexander Halperin, MC, became the Ninth Air Force neuropsychiatrist in March 1944.

Another advantage enjoyed by the Ninth Air Force was its close connection with an aviation medical dispensary, which allowed greater hospital facilities. Owing to its mobility, however, the Third CME never had jurisdiction over a rest home, but sent selected patients to the rest home run for the First CME. The types of problems seen were similar to those seen in the Eighth Air Force, except that, in the later months of the war, many more fighter pilots became patients as the result of the high attrition rates in this group. An added problem of the Ninth Air Force was the lack of an established tour of duty for combat airmen until the summer of 1944. A paragraph, quoted from the annual report for 1944, dated 31 January 1945, summarizes the therapeutic endeavors and results obtained by this establishment:

A persistent therapeutic challenge has been the tense, apprehensive, operationally inefficient flier who has not completed a satisfactory tour. For several months early in our existence the Central Medical Establishment made use of intensive narcotherapy in the attempt to return such individuals to combat. This programme consisted of several days of deep narcosis followed by a period of several weeks in a hospital and rest home. Results were unpromising. We therefore instituted a programme of a week's hospitalization during which time sedation was given only at night to produce sleep, followed by several weeks in a rest home. Our impression is that this course of treatment is to be preferred in flying personnel. In general, however, it is our further impression that the early return of the tense, apprehensive individual to a state of combat efficiency represents a hope rather than an achievement.[22]

North African Theater

Twelfth Air Force.—In January 1943, Colonel Grinker was appointed consultant in neuropsychiatry to the Twelfth Air Force; in March, he was joined by Major Spiegel. This marked the beginning of an organized neuropsychiatric program and investigation within the Twelfth Air Force.[23] Colonel Grinker returned to the United States in October 1943; Major Spiegel, in June 1944. At that time, Maj. Herman M. Turk, MC, was assigned to the Office of the Surgeon, Twelfth Air Force, and continued until his death in a flight on 23 January 1945. On 5 March 1945, Capt. John W. Kelley, MC, was appointed in his place.

Colonel Grinker so organized the medical setup that he saw personally all but the milder cases of what was then called flying fatigue, later called neurosis. Lacking an air force hospital, arrangements were made with the British 95th Hospital outside Algiers. The British were extremely cooperative and provided a center of psychiatric consultation and therapy.

The following paragraphs are from the official history of the Twelfth Air Force Medical Section:

The treatment techniques employed in the hospital consisted of rest, sedation, brief psychotherapy, and in some cases interview under Sodium Pentothal narcosis (narco-

[22] Annual Report, Third Central Medical Establishment, European theater, 1944.

[23] Unless otherwise indicated, this section is based on the History, Twelfth Air Force Medical Section, August 1942–June 1944, ch. 6.

synthesis). Treatment, however, could not be evaluated without taking into consideration the aim of therapy. This question involved the larger one of policy in regard to the rotation and conservation of combat crews. In the absence of a set policy and doctrine concerning this important matter, the Neuropsychiatrist initially adopted the procedure of recommending a return to the Zone of Interior for rehabilitation for those fliers who had completed a fairly high number of combat missions but were unable to carry on because of severe anxiety or fatigue. This procedure was effected through a direct recommendation to the Commanding General of the Twelfth Air Force, the man being returned through administrative action undertaken by the A–1 Section. It was considered that such action would enable these men to return to another tour of combat duty at a later date, whereas their retention in the theater of operation would not result in any use being made of their flying ability. The men who showed a more severe psychological disability, in the form of a [chronic] neurosis, were retained in the hospital system, and returned to the Zone of Interior through the hospitals, or reclassified for limited service and sent to a replacement depot for reassignment.

In April 1943, a further advance in the treatment and disposition of fliers incapacitated for their duties because of psychological disability was instituted by the formation of Group Flying Evaluation Boards. A Central Flying Evaluation Board, located at Twelfth Air Force Training Command, acted as a reviewing authority. Those boards were empowered to act in the case of fliers who showed inaptitude because of neurosis or temperamental unsuitability for their assignment, and in the case of those who showed a lack of moral fibre was interpreted to include those who failed to perform their duties without any underlying physical or mental disability to justify such a failure. These latter cases were considered to be contaminating and were to be removed from flying with stigma, usually involving some disciplinary action.

The Flying Evaluation Boards also handled cases of purely physical disability resulting from chronic illness or wounds in action. Thus a certain number of medical cases were removed from the jurisdiction of hospital reclassification boards and placed in the hands of specialized boards more qualified to make appropriate decisions in regard to the individual's capacity to carry out flying duties. Each of the Flying Evaluation Boards included the services of a Flight Surgeon, and all cases involving psychological disability were to be sent to Headquarters for consultation with the Neuropsychiatric Consultant before final recommendations were completed. This resulted in a more effective utilization of flying personnel.

In general, the problems met by the Twelfth Air Force were similar to those met by all other air forces and centered largely about administrative and diagnostic matters. The administrative problems concerning rotation of crewmen, establishment of a combat tour, medical rotation of neurotic fliers, and administrative handling of men unable to complete their tours were the most serious. The Twelfth Air Force had as well the problem of dispersion to a much greater extent than did the other air forces in the North African theater. This posed serious difficulties in the dissemination of knowledge and policy, and in getting men to the headquarters for consultation. For this reason, Major Spiegel was detailed to the 43d Station Hospital, a specialized neuropsychiatric hospital near Bizerte (p. 16), where he was to have charge of all air force cases.

Major Spiegel stayed at the 43d until Colonel Grinker departed for the United States in October 1943, at which time he was recalled to headquarters. Shortly after this, the "Medical Disposition Board * * * was

given authority * * * to make appropriate recommendations for disposition in any case of disability in flying personnel resulting from physical or mental factors, not severe enough to require hospitalization. This proved to be a most satisfactory technique for handling of cases of psychological disability * * * and disposition was effected with ease through close coordination with the A–1 Section."

Although the Twelfth Air Force had had a "defined combat tour of duty" throughout its history, in April 1944 the idea of having a set number of missions for a combat tour was abolished. It was decided that each individual would continue flying to the limit of his individual tolerance, regardless of the number of missions flown, before being relieved from flying. Although it was never clear which policy was more advantageous, a set number of missions was reestablished in September 1944.

In the summer of 1944, several hundred aircrew members were sent home for a 30-day tour of detached service and leave. Combining the time it took to get home and the time it took to return to the theater, the aggregate amounted to about a 3-month period. This period of 30-day relief was only to be used in cases where the men had proved capable, were still in good mental condition, and signed a statement to the effect that they would return voluntarily after their rest period. Unfortunately many abuses crept into the procedure and the percentage of men who actually returned to further combat duty was negligible. The total experience was extremely disappointing.

Rest camps, widely used in the later months, proved of great benefit. As the war drew to a close and as some central policy appeared in late 1944, neuropsychiatric work in this air force decreased markedly.

Fifteenth Air Force.—In November 1943, Capt. (later Maj.) Norman A. Levy, MC, who had been in the psychiatric service of the Twelfth Air Force, became the consultant in neuropsychiatry for the newly formed Fifteenth Air Force. He remained in this capacity until he returned to the United States in December 1944. Shortly after, he was replaced by Maj. Edwin M. Williamson, MC. The Fifteenth Air Force enjoyed several advantages by having profited from experience in the Twelfth Air Force.

An excellent directive—Memorandum No. 25–2, Headquarters, Fifteenth Air Force, 29 December 1943—established the Central Medical Disposition Board, with full powers of disposition without making it necessary for the patients seen to return subsequently to their groups. The directive was broadly written and avoided the difficulties of most similar directives by not presupposing two categories of individuals; that is, those suffering from lack of "moral fibre" and "operational exhaustion." [24]

Rest camps were established in the Fifteenth Air Force and were widely used.

The second advantage enjoyed by the Fifteenth Air Force was its assignment to the 26th General Hospital. This greatly facilitated treatment

[24] This directive should serve as a model for any future directives on this problem. Its essential advantage was that the Central Medical Board made recommendations directly to the Commanding General of the Air Force, and Air Force A–1 was responsible for directly carrying out these recommendations.

and disposition procedures. The neuropsychiatrist took an active consultant interest in the field and prepared numerous official communications on the handling and management of emotional problems.[25]

RELATIONSHIP OF PSYCHIATRY TO ADMINISTRATIVE POLICY

No aspect of psychiatry was as important as its bearing upon administrative policies. No relationship was more confused or debated; and despite the great amount of effort expended, none emerged so short of a satisfactory solution. This problem, which was exaggerated by the Army's need for definite and quick decisions, is not the Army's alone, but belongs to society at large. As has already been mentioned, the air force physician dwelt more in the psychiatric borderlands than did the medical officer of the other services and perhaps, therefore, was able to clarify this situation to a greater extent although, in the Air Forces itself, there was considerable disagreement.

Two recognized principles that governed the physician's responsibility were the central points in this difficulty. The first held that the physician should confine his activities to "the sick," and second, that he should not make recommendations that have an administrative implication. Both stands were firmly held and jealously guarded by administrative officers and by many physicians as well.

The first point had considerable theoretical interest and practical importance. Medicine for many years had denied any sharp line between illness and health, and psychiatrists, in particular, had emphasized the lack of division between mental health and ill health.

This extremely important point had been overlooked entirely in the making of policy. Instead, all psychiatric policy had been based on the assumption that there were "ill" or neurotic men and "well" men, and disposition depended upon this decision.

When it was a question of neurosis, much of this difficulty was the physician's since no clear definition had ever been given and, thus, no wide understanding was possible. Actually whether a man has a neurosis or not is of academic importance compared with the very practical consideration as to what should be done with him; yet, the focus of disagreement was upon the diagnostic term because it controlled the disposition.

In the Air Forces, much of the difficulty lay in the form in which emotional disorders in fliers become manifest. Ordinarily, they were phobic at first, with the expression of physical symptoms in the plane only and expressed on the ground as an irrational fear of the aircraft or of some particular aspect of flying. Because of this lack of physical symptomatology and the confinement of symptoms to the aircraft, medical officers hesitated to call the syndrome "neurosis." This hesitancy was increased by the fact

[25] Medical History of the Fifteenth Air Force, November 1943–August 1945, pp. 52–54.

that removal from flying alone was sufficient to relieve the flier of symptoms, except perhaps those of transient guilt.

The frank expression of fear was interpreted as a purely conscious wilfullness of the flier; the fact that the reasons for the fear might be complicated and largely unconscious was overlooked. As emotional maladjustments can be expressed in attitudes of mind, in the development of irrational fears, in antisocial behavior and in bodily illness, the physician was even more at a loss than if a set pattern had been the rule. Because of his training in physical medicine, the physician exaggerated the bodily signs of anxiety to an importance greater than their cause, and mental symptoms were denied as signs of emotional illness.[26] This unfortunately put a harmful premium on physical symptomatology.

A similar diagnostic confusion resulted from the emphasis placed on past history. This was meant to differentiate an entity known popularly as a "true psychoneurosis," where past signs of anxiety so explain present ones that a medical term should be applied. As past signs of anxiety were common and their elucidation depended to such a great extent upon the skill and effort of the examiner, this again led to disagreement. As a medical diagnosis is often to the advantage of the individual, this absurdly penalized a man for not having had anxiety in the past.

An important error was the attempt to express many ideas by one word, such as "psychoneurosis." (There were at least 60 different expressions of a similar nature, all holding different connotations to different men.) [27] The first attempt to improve this was a descriptive system adopted by the Eighth Air Force in April 1944.[28] This system was a step in the right direction for it both unified and clarified the problem. As anxiety was the common factor to all these variously expressed reactions, the basic term was "anxiety reaction." This term was then modified by the severity of the incapacity, by the amount of stress common to others in the Air Forces at that time, by the amount of predisposition, and by a list of the more important symptoms, including mental ones. It was also proposed to make a definite recommendation based on the man's future capabilities. This system was adopted later by the entire Army.[29] Hospitalization or rotation to the United States was, however, the only such recommendation allowed.

None of these points in diagnosis would have been so important had it not been for the second principle just mentioned, which was that a physician could not make an administrative recommendation; nevertheless, the diagnostic label he did use determined disposition. This, in fact, gave the physician indirectly a great deal of administrative power and at the

[26] (1) Project No. 18 Report No. 3, Headquarters, First Central Medical Establishment (Special), subject: Diagnostic Nomenclature for the Emotional Disorders of Combat Crews, 8 Mar. 1945. (2) Anderson, R. C.: The Neuroses of Peace and of War. Occup. Med. 1: 121–144, February 1946.

[27] Tab to Memorandum for Assistant Chief of Staff, G–1, 18 Dec. 1944, subject: Psychoneurotics.

[28] See footnote 26(1).

[29] War Department Circular No. 149, 16 June 1945.

same time resulted in many diagnoses being made more with an eye to disposition than to actual findings. Much of the outcry against psychiatrists originated in this point. It was the disposition and not the diagnosis which was so important, both to the patient and to others. Because they were so closely interdependent, the issue was obscured and attacks centered upon the diagnosis. A basic issue at stake was the administrative "advantage" to the individual of a medical label. In general, a medical diagnosis protected an individual from some form of prejudicial action and was regarded as an excuse for, rather than as an explanation of, behavior. It is this misconception that added so much emotion to the problem.

The rigid connection of disposition to a diagnostic term was based on the premise that men with similar symptoms necessarily had the same prognoses, characters, capabilities, and capacities for future usefulness to the Army, a conception that proved to be false.[30]

Air Forces policy dictated that administrative action could not be taken on a man "physically disqualified" for flying.[31] "Physical" in this connection meant "medical," and the mental examination was considered part of the physical. Because of this policy, the physician was placed in the position, by declaring an emotionally incapable man "qualified," by allowing administrative action; or by declaring him "disqualified," of preventing administrative action. The first alternative, the expressed intent of AAF Letter 35–18, placed professional judgment secondary to administrative opportunism.

A particular circumstance further complicated this problem. While in cadet training, a man's motivation for flying was considered an important element in his qualification; his fear of flying, an excellent reason for his elimination. Although many cadets experienced emotional difficulties, they never constituted a serious problem; their elimination from flying was easy administratively, and they reverted to enlisted status automatically as unsuccessful candidates. Flight surgeons trained in this practice suddenly met indignation and opposition when they disqualified men for the same reasons after they had been rated and commissioned.

This reversal in attitude took place for the following reasons:

1. The difficulty in disposition made by the complicated legal methods for reclassification of officers.

2. The assumption that selection terminated with training and was not to be carried on in depth.

3. The ruling that the aviation badge was a diploma signifying completion of training and was not a sign of active flying.

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[30] (1) See footnote 26, p. 873. (2) Project No. 18 Report No. 2, Headquarters, First Central Medical Establishment (Special), subject: Disposition of Combat Crews Suffering From Emotional Disorders, 1 Mar. 1945.

[31] (1) See footnote 30(2). (2) AAF Regulation No. 60–2, 3 Oct. 1942, 5 May 1943, and 3 Dec. 1946, subject: Disposition of Flying School Graduates Considered Not Proficient. (3) AAF Regulation No. 35–16, 20 Oct. 1944, subject: Military Personnel, Flying Status Suspension and Removal, Restriction and Suspension From Flying Evaluation of Flying Personnel. (4) AAF Policy Letter No. 35–18, 7 Dec. 1944.

4. The patency of the advantage in avoiding combat.

This problem showed itself most strikingly in three different phases of the war: First, in the precombat training phase of rated fliers; second, in combat; third, in combat returnees.

Precombat training and combat.—The first time this problem became of primary importance in AAF medicine was in the spring of 1943 when large numbers of men underwent transitional and overseas training. Because many men became emotionally upset before going overseas or as a result of training in a new aircraft, their failure to continue in flying was most conspicuous. Medical disqualification led mostly to their remaining in the United States, frequently to their restoration to flying duty with the benefits of flying pay, and often with more rapid promotion than the men who continued in flying. To prevent such "advantages," the physician was instructed [32] not to disqualify men on whom administrative action was contemplated. Unfortunately, the medical criteria for such action, couched in such nonmedical terms as "authentic fear of flying" and "lack of intestinal fortitude," were based upon the manner in which the symptoms were expressed.

In combat, similar problems were met in a similar way. Eighth Air Force Memorandum No. 75–2, of June 1943 (p. 865), was essentially the same as the Second Air Force policy letter; "lack of moral fibre" was substituted for "lack of intestinal fortitude," and the physician was directed to diagnose the illness of his patient as much by assessing how many missions he had flown as by any medical consideration. Both directives had the same faults. They put a premium on physical symptomatology and categorized men on the basis of their symptoms, not their capabilities. On the physician was placed the burden of a decision which determined administrative action, often undesirably.

These directives were the prototypes for AAF Regulation 35-16, the first overall policy issued by Headquarters, AAF, in October 1944, for handling men who for emotional reasons had become incapacitated for flying. Although this regulation had the faults just mentioned, it managed to provide a formula for operation that fulfilled a useful purpose. It recognized the need for a central authority, removed from local prejudices and staffed by specialists, to examine and treat emotional casualties, but it failed to give it proper disposition authority and failed to recognize that cases could not be divided into "medical" and "administrative" categories, when both kinds of considerations were pertinent to every case. These defects hampered the usefulness of the central medical boards to the groups.

The returnees later.—Similar considerations, applicable to the problem of the returnee, were the center of a storm of debate during the latter months of 1944 and early months of 1945. This problem became so acute

[32] Letter, Headquarters, Second Air Force, Office of the Surgeon, 8 June 1943, subject: Psychiatric Opinion of Personnel Undergoing Flying Evaluation.

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that it gave rise to a study by G–1 (personnel) for the Chief of Staff. In this period, the problem shifted only so far as the advantages of a medical diagnosis automatically meant discharge from the service and eligibility for longterm compensation; a diagnostic term similarly determined disposition, and cases were still held to be either administrative or medical.

Many returnees were severely disturbed emotionally, most would have been harmed by medical discharge, most should not have received longterm pensions, and most had no real assignment.[33] Policy was such that an administrative discharge was a detrimental condition for the mental health of these men. A medical discharge put an unwholesome premium upon illness; continuance in service produced serious illness. Representatives from the Surgeon General's Office and Colonel Holbrook and Colonel Hastings from the Office of the Air Surgeon attempted in vain to obtain a facile administrative discharge. The whole problem is well put in a personal letter dated 10 March 1945 from Dr. Strecker, through Lt. Col. Westray B. Boyce, WAC, staff officer of G–1, to Maj. Gen. Guy V. Henry, Assistant Chief of Staff, G–1.

Briefly, here is the situation. As you know there is a large and steady volume of returnees from "overseas" in the Army Air Forces. They divide themselves unevenly into two groups: about 20 percent are found to have NP [neuropsychiatric] conditions and are sent to our Air Forces Convalescent Hospitals for treatment; about 80 percent are presumably all right. A large segment of this group are navigators, bombardiers, and gunners and they are apt to be "non-coms." Soon they are in pools, awaiting assignments and here the trouble begins. The officers in charge of the pools are usually without oversea experience; the men become dissatisfied with the elementary routine and retraining; they often commit military infractions and lose their stripes, etc. Even more serious, NP symptoms arise on the basis of dissatisfaction and frustration and they end up in convalescent hospitals. All this is not only bad for the men, but also very bad for morale. Of course, this group whose symptoms are due to dissatisfaction and not to the load of combat stress are far from being hopeful candidates for treatment.

The situation is further complicated by the fact that good youngsters are being accepted and put on the inactive list at the rate of 7,500 a month. Since there is no need for them on active duty, here is a large and growing pool of fine youngsters whose morale is dropping to a low ebb.

There would seem to be a feasible solution: As far as those who are in the convalescent hospitals, let them continue to be treated just as efficiently as they are being treated now, but let them be rehabilitated back to civilian life and not to duty. They can be placed on the inactive list upon discharge.

As for the 80 percent who are not sick to start with, if suitable assignments are not available for them, let us say, within 30 days, then let them be honorably discharged back to civilian life and placed on an inactive status.

I should have mentioned that not so long ago the number of these men who had to be sent to convalescent hospitals from the "pools" because of NP symptoms was so large that for the time being our Convalescent Hospital Don Ce-Sar was unable to receive men returning with NP conditions from overseas.

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[33] Memorandum, Air Surgeon, for Chief of Staff (Attention: G–1), 18 Nov. 1944, subject: Disposition of Psychoneurotic Personnel, Tab M thereto.

In my opinion, the solution suggested would accomplish a number of important objectives.

1. It would restore to feasible and adequate functioning capacity our now overcrowded and hard-pressed convalescent hospitals.

2. It would reduce the dimensions of the NP problem to proportions within the capacity of our sadly limited medical psychiatric personnel.

3. It would reduce the number of Air Forces in the segment described to more practical proportions.

4. It would save many men from being forced into NP conditions.

5. It would keep available a large and satisfied group of personnel on inactive status.

6. It would open up at least some area of service for the young men who have volunteered, who have had no duty, and who are on inactive status.

7. It would be excellent for the morale of all the men concerned and for civilian morale.

I have assurance that there would be no objection from the Manpower Branch of Federal Security.[34]

Conclusions.—Air Forces experience showed that it would be reasonable to abandon the approaches which were used in the formation of policy dealing with emotional problems, and to adopt more realistic ones based upon actual findings. In writing future policy, the following points should be recognized:

1. Men with emotional disorders, as a result of combat stress or not, form no uniform group for which a uniform disposition is desirable. In fact, they vary just as widely in intelligence, capability, and loyalty as do any group of men.

2. There are medical and administrative decisions to be made in each case and, therefore, medical and administrative officers should combine in the judgment of each case.

3. A diagnostic term should not alone determine disposition.

4. Disposition is most frequently an essential part of medical treatment. (Most neuroses in the military service are situational and yet the physician is told the situation is none of his affair.)

5. Disposition should depend more heavily upon the future usefulness of the patient to the Army than upon his past failure.

6. Neurotic traits lead just as frequently to success as to failure.

7. The management of the emotionally disturbed flier should be carried out by a central agency composed of medical and administrative officers. This agency should have full medical authority and administrative powers necessary for controlling disposition.

8. The reclassification of officers should be carried out on a utilitarian, rather than a moral, basis.

DITCHING AND BAILING OUT OF PLANE CREWS

Maj. Merrill Moore, MC, wrote an interesting psychiatric evaluation of 10 crewmembers, the total complement of a U.S. Liberator plane rescued at

[34] To the best of my knowledge, no action was ever taken on this proposal.—A. J. G.

sea by a flying boat of the Royal New Zealand Air Force.[35] However, Rottersman and Peltz [36] summarized a similar, larger study made by Capt. (later Maj.) Frank H. Bowles, Jr., MC, on the effects of ditching on 18 B–29 crews and other related data as follows:

All the surviving B–29 air crew men gave thanks to the Naval Air Sea Rescue Organization and praised their efficiency not only in their rescue but in the care they received while aboard ship.

Of the 200 air crew members involved in ditching and bailouts, 154, or 77 percent, of the crew members were saved. The 10 rescued crews that ditched were more fortunate than the 8 that bailed out. * * * we can conclude that in this theater it is safer to ditch than bail out, by the odds of better than 1 to 3 (10.7 percent lost in ditching and 36.2 percent lost in bailing out).

The number of losses for both bailouts and ditchings, when analyzed by crew position, were equally distributed. However, we might infer that the most likely to be injured or lost in a ditching are the airplane commander and the crew members whose ditching positions are in the rear unpressurized compartment. The airplane commanders are prone to keep their shoulder straps loose or not wear them at all because it impairs their movement in flying the airplane. As for the men in the rear, if the ditching is violent, the fuselage breaks and they are trapped beneath the water as the tail section sinks.

There was no predominant type of injury in the series of cases, unless we can say multiple lacerations, abrasions, and contusions too minor to hospitalize. Of all the injuries, only 14.3 percent were severe enough to send to the hospital. It is interesting to note that the injuries were evenly distributed between ditching and bailouts. Too, no one ditching position was more vulnerable to injury than any of the others. The types of cases hospitalized for trauma are as follows: Infected lacerations, 9; fractured fibula, 4; lumbosacral sprain, 4; compression fractures, lumbar vertebrae, 2; fractured pelvis, 1; fractured tuberosity of humerus, 1; vitreous hemorrhage, 1. In all, only 2.6 percent of the injured survivors were found serious enough to be evacuated to the States.

The psychic trauma experienced by this series of ditched air crewmen produced the two most common types of psychoneurosis; anxiety reaction and conversion hysteria, as would be expected. Among the 33 survivors to come under the care of the psychiatrist, there were no cases of psychosis. The pattern of the psychoneurosis was predominantly anxiety reaction, for only three men developed conversion hysteria. Of these, two required evacuation to the States. The anxiety reactions varied in depth, from a few who were able to return to flying duty after treatment, to three cases severe enough to evacuate. In all, 21.4 percent of the survivors developed a state of anxiety severe enough to be grounded.

The Flight Surgeons of this Wing have done an excellent piece of work caring for the mental casualties, for all showed, except a small percentage of the survivors, some anxiety on return to their squadrons. Of the 154 men returned, 120 returned to full flying duty. The rest were either returned to the States having completed enough missions to fall in the category of reaching the limit of their individual tolerance for combat (19), or return through medical channels as anxiety state, severe (5). Only six enlisted men were grounded for treatment or disciplinary action. Three officers met a Flying Evaluation Board and were reclassified. Ten percent of the survivors required dispensary psychotherapy and had trouble returning to full flying duty.

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[35] Moore, Maj. Merrill, MC. Some observations on a Water Landing. From notes taken from the Office of the Flight Surgeon (Auckland, New Zealand) as of 1944; written in 1957. [Unpublished.]

[36] Rottersman, Capt. William, MC, and Peltz, William, M.D., "Summary and Conclusions of Report on the Effects of Bailing Out, Ditching, etc., on B–29 Crews." [Unpublished.]

It was found more difficult to return to duty bailout survivors than those that ditched. Twenty-five bailout men were removed from flying and thirty-three returned to flying; while eleven ditched men were grounded and seventy-five returned to full flying duty.

The survivors who successfully resumed combat flying, on retrospect, inferred that the fear in returning to duty was largely loss of confidence in the B–29. They became overcautious and "sweated out" each mission far more than they did before ditching or bailing out. The airplane had almost killed them, so there was a residual unexpressed anxiety that was not dispelled until after they had regained confidence by flying many more missions. This latent fear was expressed as the B–29 but included the vast expanse of water over which they flew to and from the target. So, from then on, they had two fears to contend with—fear of the target, and fear of the airplane.

The Flight Surgeons found it easier to return the men to flying when no crew member was lost in the bailout or in the ditching. On those crews where all the fliers were rescued, 90 percent were returned to duty, while only 60 percent of the men were returned to flying when members of their crew were lost.

The fear reaction was found to be accumulative. It was easier to return the fliers with few missions to duty than those with many. And when another harrowing experience occurred, the fliers were usually thrown into a deeper fear reaction which they were unable to handle, as in the case of the radar operator who developed amnesia when a 20-mm. shell exploded in his compartment.

For successful care of returning survivors, it is imperative that the Rest Camp is immediately available. In the first place, they have all undergone severe psychic trauma and are physically fatigued. Second, if they stay for any length of time in their squadron, the other crews extend too much sympathy and they begin to entertain the idea that it would be foolish to continue flying. Third, as they resume their old routine, they run afoul of their squadron commander and operations officer who question them about returning to flying, not realizing the emotional state they are in. Fourth and last, their ego and fear reaction conflict when the other crews go out on missions. So, as soon as possible, they should be sent to Rest Camp.

We have found it a fundamental principle in the treatment of these men, not to force them back to flying by coercion. Their anxiety reaction is increased and in no case has this proven successful. Survivors have been lost for flying by an unthinking squadron commander who has "bullied" them. We do not imply that the AR's should not be thrown at a man if he has had sufficient time to collect his thoughts and has no crippling anxiety. However, in cases where sufficient time and solicitude has been given, very few men have not returned to flying of their own accord. The old adage that "time is a great healer" in these cases is a truism. For, the example set by other fliers going on missions day after day produces a guilt reaction and their sense of duty arises to make them fly again. The dealings should be firm but kind.

A crew member obsessed by fear sets the pattern for the rest of the crew anxiety reaction. If one of the survivors becomes hypochondriacal and continually discusses his symptoms and philosophy about flying with his companions, those easily influenced soon react in the same manner. The dissenter acts like a rotten apple and early disposition should be made to remove him from the crew and barracks.

We found more success in splitting up a crew and distributing the men among other crews in instances where a number of men had been lost in bailouts or ditchings. This removes a source of depression and a constant reminder of the harrowing experience they have been through.

In conclusion, suffice it to say that the courageous and dauntless spirit of the B–29 combat crewman, coupled with his intrepid efforts against the enemy, is truly a measuring rod of the strength of our country.

CHAPTER XXIV

Neuropsychiatric Problems of the Flier

Robert C. Anderson, M.D.

Experience of neuropsychiatrists with flying personnel in World War II has served to establish the fact that the neuropsychiatric problems of such personnel are the same as those which occur in all other environments. The causative agents are the same and the end result is the same. Such a statement may seem superfluous at first glance but it has not always been generally accepted. This is because of the fact that during the development of aviation medicine there was a tendency for physicians to describe entities of disease occurring in fliers largely in environmental terms. This disposition resulted in a fairly widespread belief that many conditions were wholly peculiar to flying personnel. This tendency was probably more marked in the field of neuropsychiatry than in some others. Most of the pioneers of aviation medicine were not primarily interested or qualified in neuropsychiatry. Hence, the early flight surgeon was not familiar with neuropsychiatric disorders occurring in any environment. Those that he saw occurring in fliers were described and thought of as distinct and new entities.

This tendency was productive of such terminology as "aeroneurosis," "aero-asthenia," "flying fatigue," and so forth. These conditions were described by Armstrong [1] and others at an early date. As trained neuropsychiatrists began to take a part in aviation medicine, they recognized that all this terminology was composed of new names for old friends—the various neurotic reactions. This viewpoint was not greeted with enthusiasm or wide acceptance at first by the majority of those interested in either aviation or aviation medicine. The term "neurosis" carried a certain stigma which both the aviator and the physician were loath to associate with the highly selected person who was the peacetime flier.

While World War II afforded an increased opportunity for the consideration of neurotic reactions in fliers, it also afforded a further opportunity to avoid distasteful terminology. The term "war neurosis" came into widespread use and, as applied to flying personnel, was known as "operational fatigue." This term not only implied a condition peculiar to aviation but also to combat or operational flying. Actually, it was no more peculiar to flying than to any other activity accompanied by the same type and amount of stress, and it was likewise not peculiar to combat. Grinker and Spiegel [2]

[1] Armstrong, Harry G.: Principles and Practice of Aviation Medicine. Baltimore: The Williams & Wilkins Co., 1939.

[2] Grinker, Roy R., and Spiegel, John P.: Men Under Stress. Philadelphia: The Blakiston Co., 1945.

have stated that war neuroses (including operational fatigue) are in reality psychoneuroses.

The peacetime aviator develops the same type of neurotic disturbances as does the combat flier and for the same reasons. The incidence is less in the peacetime aviator because the quantity of stress is less and the person is more highly selected. Too much emphasis, however, should not be placed on this last factor. Selection as nearly perfect as is possible will not guarantee that the individual will not be subjected to intolerable stresses resulting in a neurosis. Obviously, the possibilities for such stress situations are greater in an environment with the admitted and ever-present dangers of aviation than in most other peacetime environments.

The causative agent of the neuroses of fliers is anxiety, as is true of all other neuroses. The individual method of expression of that anxiety determines the form of reaction presented by the patient. This allows for a wide variation of syndromes and symptom complexes. However, allowing reasonable latitudes, there are certain general reaction types which occur more frequently than others in flying personnel. One feature which tends to distinguish the neuroses of the flier from those of the average person is the strong conscious component which is usually present. Often, this conscious element is the presenting one, such as "I'm scared to fly." The physician not trained in neuropsychiatry is apt to call such a condition simple "fear" and to overlook its true meaning and significance. These facts have been well described by Bond.[3]

PHOBIAS

Of all the neurotic disorders to which fliers are subject, by far the most common is phobia. Not only does this phenomenon occur alone but, in many instances, in which other syndromes predominate phobic manifestations are accompaniments. A phobia is defined as a morbid fear of a specific situation or thing. Such a symptom may be a clever disguise for the true underlying situation, especially important to bear in mind in the phobias of fliers.

The conscious expression and presenting symptom of the flier's phobia usually takes the form of a fear of flying a particular type of aircraft or, more rarely, all aircraft; a fear of a particular type of flying, such as night flying; or a fear of flying over certain types of terrain. Superficially, it seems that an isolated activity has been made the focus of conscious anxiety. This is true but what is equally true, and often overlooked, is that the same activity is the focus of a great deal of anxiety concerning the origin of which the individual is unconscious.

Such a patient is usually able to regard his symptoms objectively. However, he finds that the amount of anxiety which is attached to the specific focus is out of all proportion to his conscious desires and beyond

[3] Personal communication to the author from Douglas D. Bond, M.D.

his conscious understanding. The patient can give no reason why flying which was formerly a pleasure has now become a source of unreasoning fear. The conscious expressions of fear which such a patient offers are in reality just as much "conversions" as are the more dramatic symptoms of hysteria. The only difference is that the symptom is expressed mentally instead of physically.

Very often, the fatalistic attitude which most experienced fliers adopt sooner or later resolves itself in the conviction that death in an airplane is inevitable. If the flier is subjected to a series of minor escapes from death or if considerable time elapses, this conviction may be unconsciously expanded to include the premise that each flight will be the last. Often, identification with a dead friend who was a "better pilot than I" may strengthen this conviction. The flier takes off on every flight unconsciously saying to himself in the best Hollywood fashion: "This is it."

As such a situation as that described continues, the flier builds up an enormous amount of anxiety about the true origin of which he is unaware. That something does not happen to him becomes more disturbing in effect than if something did. The next step is the displacement of this anxiety to some isolated activity and thus the phobia results. The mechanism of displacement is frequently utilized by this neurotic flier, and it, together with identification, accounts for most of his difficulties.

Perhaps, more rarely, the true origin of the phobia may lie in the flier's interpersonal relations. Thus, he develops an aversion to a particular type of plane so that he may be moved from an organization in which there is some person particularly distasteful to him. The underlying emotion of hate is not consciously experienced in such an instance any more than is the true fear from which the individual in the first group suffers.

That a large part of the phobia is unconsciously motivated is attested by the tendency for such reactions to "spread." Once the pilot has a definite phobia for a particular type of aircraft, his symptoms are usually not long alleviated by being removed from that aircraft. The phobia encompasses succeeding types of airplanes, succeeding types of flying and so forth, and becomes more and more crippling as time progresses. Because of these characteristics, the prognosis is relatively bad in such a reaction.

The phobias are usually stubborn and resistant to treatment. The underlying emotions are firmly repressed, and it is difficult to bring them to light and develop true insight. If the patient attempts to carry on as a flier in the face of his phobia, he may have psychosomatic symptoms as secondary expressions of his repressed emotions. "Tension headaches" and vertigo are the most common of these. Such patients are prone to carry on as long as possible, since they suffer from the same fallacy of conscious reasoning that the observer may, and do not wish to admit "cowardice." Such a patient may be quite comfortable and symptom free if not exposed to the precipitating stimulus. This is characteristic of all phobias. Thus,

the flier may have no further difficulty if he renounces flying, but obviously this does not constitute a cure.

ANXIETY REACTION

Although phobia formation constitutes one of the most frequent neurotic symptoms of the flier, the syndrome designated "anxiety state" or "anxiety reaction" is the most common generalized manifestation. Various phobias may form a part of this picture, but, in the anxiety reaction, the disturbance of the personality is more widespread than in simple phobia formation.

It is the anxiety reaction which formed the major part of conditions known as operational fatigue in combat fliers. However, it can and does occur in noncombat fliers. Classically, it may be the result either of long-continued minor stress or of a single overwhelming experience. The opportunities for the latter are somewhat greater in combat, but it is important to bear in mind that the peacetime aviator is subjected to long-continued minor stress.

Characteristically, this reaction takes place in a series of steps denoting its increasing severity of manifestation. The first of these steps is usually disturbances of sleep. In the beginning, this takes the form of difficulty in going to sleep. The patient who has been able to dissipate a portion of his anxiety and tension in activity during the day is unable to do so in the quiet immobility and darkness after going to bed. Consequently, his anxieties seem intensified at this time and he is unable to relax and go to sleep. When sleep is finally attained, the next disturbance is in the form of dreams. These are occupational in nature and usually involve the patient in frightening accidents and emergencies. He dreams of crashes, of stalling out, and of catching on fire. Also common is dreaming of unsuccessful attempts to land the airplane. These dreams are often accompanied by talking and even walking in sleep and also may awaken the patient. All these phenomena interfere with rest as they persist and increase so that the patient has the burden of physical fatigue added to his other difficulties.

The next step in the development of the anxiety reaction is the appearance of states of partial dissociation of consciousness in the daytime. Partially as a result of his disturbed rest, the patient is apt to be subject to drowsiness in the daytime. In severe cases, this may produce the "startle reaction" to sudden stimuli. Also, as the anxiety increases, the patient logically becomes introspective and preoccupied with his thoughts and his problems which results in a partial detachment from his surroundings.

The next step is the appearance of a personality change. This is due to the patient's realization that something is wrong and his inability satisfactorily to explain it as the result of his introspection. The personality change follows no set pattern but usually takes the form of expression of characteristics which are opposite to the patient's usual personality.

Prominently associated with this is depression of mood, which may be severe in degree, and extreme irritability. The latter may be the most prominent feature to the casual observer. The patient is also self-conscious and may develop mild ideas of reference, believing that others are "watching" him, and so forth.

Accompanying all this are the usual somatic concomitants of anxiety. The patient experiences palpitation of the heart, dyspnea, and urinary frequency. Loss of appetite is common and contributes to loss of weight. Objectively, the patient shows coarse tremors. The use of tobacco and alcohol may become excessive.

The success of treatment of this condition varies with the stage in which it is recognized. In common with all neurotic disorders, the earlier treatment is begun, the better is the prognosis. If the condition is recognized in the earlier stages of disturbances of sleep and fatigue, excellent results may be obtained by temporary respite from flying duties, with sedation, and with simple explanation and reassurance. Beyond this stage, psychotherapy must be much more intensive, and results are not nearly so encouraging. The most common mistake which is made is to expect that grounding the patient will relieve the symptoms of a fully developed and long-established neurosis. Simply removing the stimulus does not alter such behavior patterns once they are firmly established, and this fact has been a source of disappointment and misunderstanding to the patient and physician alike. Rest alone does not cure neuroses.

REACTIVE DEPRESSION

As indicated in the preceding section, reactive depression may be a symptom of some of the other types of disturbance. However, more rarely this may be the predominant reaction. The depth of depression may be great and it may be difficult to distinguish from other types of depression.

The more severe forms of reactive depression in flying personnel are usually the result of identification with dead friends or the assumption of responsibility for the death of others in crashes and collisions. Very often, the true underlying cause may be repressed hostility toward those who are dead. In the opinion of this author, however, such ambivalence is not necessarily present, and straight identification can occur without it.

The person who has identified himself with a dead friend or associate may arrive at the same conclusions regarding the inevitability of death in an airplane as was described in the discussion of phobias. Instead of a phobia, a profound depression may develop as the result chiefly of his own personal characteristics. Those who develop depressions in such circumstances are usually somewhat immature and narcissistic in their personality makeups. The author has seen several such patients in whom a lifelong

phobia of death itself was accompanied by childish fantasies of never growing old or never getting sick.

The patient with a moderate reactive depression is frequently overlooked by his lay associates and sometimes by the physician. This is especially dangerous because the retarded psychomotor processes of such an individual may constitute a real menace to the safety of himself and others if he continues to operate an airplane. Careful investigation should be made of those fliers who are often described as having lost interest or being difficult to deal with. Patients with severe cases are usually recognized easily. The patient shows a facies of hopelessness, retardation of thought and activity, and has loss of appetite, sleeplessness, and so forth. Overlooking a patient with reactive depression or forcing the aviator so affected to fly may result in suicide. The airplane is a convenient instrument of self-destruction which may explain some "unexplained" crashes.

Fortunately, this group of patients probably responds better to treatment than any of the others if that treatment is prompt and intelligent. It goes without saying that the patient must be temporarily suspended from flying duties. He then must be given insight into his identifications, and the lack of logic for his assumption of responsibility for matters entirely beyond his control must be pointed out. This type of patient is always wholly unconscious of these matters. If the patient is intelligent and the therapist is skillful, the response to this type of management is dramatic. The patient may show an almost complete reversal of attitude in a short time.

NEURASTHENIC SYNDROME

Prominent among the neurotic disturbances of fliers is the neurasthenic syndrome. This is the result of displacement of anxiety arising from other sources to the focus of physical symptoms. The neurasthenic flier does not differ clinically from his counterpart in any other activity but, as has been pointed out, the environment of flying itself may provide him with some anxiety which he may choose to handle in this manner. The neurasthenic type of reaction tends to be insidious in onset and, consequently, is not usually seen as the result of one or two severe traumatic experiences. Rather, it develops gradually as the result of minor and long-continued stress. It is important to bear in mind that the responsible factors may be wholly unrelated to flying.

The neurasthenic syndrome is usually the response of individuals who are unhappy and dissatisfied with their environment in general. Many fliers learn that their profession is not all glamour but are either unprepared for other activities or unwilling to admit failure. They may express the anxiety arising from this situation as anxiety concerning their

physical health. Their symptoms are of the hypochondriacal type familiar to every physician.

The symptoms of the neurasthenic flier in themselves do not prevent him from flying. Usually, he expresses himself as believing that he should not fly until they have been alleviated, or that he cannot be expected to fly efficiently feeling as he does. No anxiety is ever expressed directly related to flying. The patient is perfectly willing to fly and desires to fly even if he is told that this is inadvisable. The only concern which the patient expresses is in regard to his health, and he is persistent in his efforts to improve it. Often in fliers, the symptoms may take the form of exaggerating physical defects. Thus, the mild sinusitis becomes worse, there is increasing difficulty in clearing the ears, and so on.

Neurasthenic patients are relatively recalcitrant to treatment, and flying personnel with this condition are no exception. The reaction is usually related to deeply seated personality traits which are difficult to modify. Successful treatment of any neurasthenic flier usually involves an extensive alteration of the patient's environment. If the flier's difficulties do not stem from flying itself, this may be accomplished. If the patient's basic difficulty is flying, he cannot be successfully treated as a flier. Those patients in whom actual organic defects are exaggerated are especially difficult to deal with. A word of caution is in order concerning the symptomatic treatment of the neurasthenic patient. This is frequently done and results in the physician's literally "chasing" the symptoms all over the patient's body. The patient may be expected always to remain one step ahead of the treatment by the mechanism of displacement. Some neurasthenic fliers may continue to function somewhat inefficiently as fliers in peacetime aviation. Obviously, this is not desirable from the viewpoint of either the patient or others.

CONVERSION PHENOMENA

Hysterical conversion phenomena of the dramatic and obvious type usually described are not too common in flying personnel. It is generally recognized that these phenomena have had a decreasing incidence in general for the past several years. An occasional flier, particularly the neophyte, may develop the classical paralysis or anesthesia identified with hysteria, but this is relatively rare. During the war, a few cases of hysterical amblyopia were reported, including a case in which a totally "blind" cadet was safely guided to a landing.

It has been established fairly recently, however, that flying personnel do present a fairly large number of conversion phenomena which are much more obscure and can be detected only by painstaking investigation in many instances. These are chiefly related to the special senses and are often of a type which do not totally incapacitate the flier but protect him from

special types of flying. From the beginning of aviation, sufficient medical emphasis has been placed on the senses of sight and hearing for their importance to be thoroughly appreciated, and perhaps overestimated, by the flier. Hysterical symptoms referable to these functions, therefore, are quite logical.

Such symptoms usually take the form of mild impairment of visual acuity, depth perception, night vision, or hearing. Diminution of visual acuity is a common response to an aversion for instrument flying. The weakened eyes cannot tolerate the strain of continued observation of instruments. Similarly, disturbances of depth perception are utilized as protection against formation flying and to explain poor landing techniques. Defective night vision protects from night flying. Many cases of "aviation deafness" occurring in young fliers with only 300 or 400 hours of flying experience are hysterical in origin. Often, they do not bother the person except with reference to the intercommunication system. Thus, he cannot instruct and communicate with his student; he cannot fly multiplaced ships and converse with his crew. Defective hearing is also utilized to protect from instrument flying, and in many instances, the flier can hear everything perfectly with the sole exception of the radio "beam." Very few such patients are malingerers as might be expected. The deception of the true malingerer is not readily exposed and is not influenced by suggestion as are the symptoms of these patients. As is characteristic in all cases of hysteria, the patient accepts his disability philosophically and is anxious to carry on as best he can in the presence of the impairment.

Symptoms of this type are amenable to treatment as far as their removal or improvement is concerned and respond readily to simple suggestion and reassurance. However, this in no way guarantees against their recurrence or the substitution of new symptoms. Consequently, for the flier who has this type of reaction, the prognosis for future usefulness in flying is guarded. In peacetime aviation, it may be possible to assure that such a flier need not participate in those types of aviation distasteful to him.

PSYCHOSOMATIC DISTURBANCES

Psychosomatic disturbances comprise a group of conditions often confused with conversion phenomena. In these conditions, however, the symptoms do not represent the conversion of anxiety into the physical symptoms of hysteria. Instead, they represent the individual's expression of anxiety through lower visceral centers. One of the best descriptions of this group of disturbances has been given by Grinker and Spiegel.[4]

Recognition of psychosomatic diseases has increased greatly as a result of the war. By and large, they formed the largest problem with which the

[4] Grinker and Spiegel, *op. cit.*, pp. 251–277.

military physician had to deal. The visceral system most often disturbed was the gastrointestinal system, and if one considers the early steps of personality development, the use of this system by the patient to express emotion becomes quite logical. Most of the "dyspepsias," "ulcer syndromes," and so forth seen in American troops had their origin here. This fact was also recognized by our enemies, although their understanding of the etiology may have been imperfect. The Surgeon of the German Luftwaffe is quoted as having said: "The psychological diseases of World War I become physiological diseases in World War II. The soldier who had an hysterical paralysis in World War I, vomited in World War II." [5]

With reference to the flier, this group of disorders is probably of most significance in relation to so-called airsickness. It is not meant to imply that airsickness, or preferably motion sickness, does not exist on an etiologic basis which is chiefly physiologic. A few simple experiments with exposure to the effects of motion will convince the most confirmed skeptic of that. In common with most disturbances of the human organism, however, this is one in which it is most often impossible to draw a hard-and-fast line between the psychic and somatic factors responsible. About the most that can be hoped for is to determine which factor seems to predominate in the given case. There are many cases of airsickness in which the psychic factor predominates to the extent that the physical one is of negligible importance.

In many cases of airsickness, it can be readily demonstrated that there is little or no relationship between the symptoms and motion or other purely physical factors. This includes those patients in whom vomiting is precipitated by the sight of an airplane or begins before the plane is airborne. That some of these patients respond to various motion sickness preventives does not alter the basic premise. Most of these remedies are composed of sedative drugs in various combinations. Many experienced fliers who are ordinarily not susceptible to motion sickness recognize that they are more apt to be susceptible if they are "nervous" or worried about something. Some cases of airsickness may represent conversion phenomena but, ordinarily, the hysterical patient does not choose symptoms so disagreeable and prostrating as these. Occasionally, the flier may be subject to diarrhea just before flights or after their conclusion. This is another way in which the gastrointestinal tract "speaks." The author has seen one high-ranking flier officer of long experience in whom this was a regular phenomenon.

The treatment of these disturbances follows that of all other psychosomatic complaints. Most important is the recognition of the true underlying etiology. Intelligent patients under skillful therapists make excellent recoveries in many instances, following the development of insight. As in all other forms of psychotherapy, much depends upon the therapist, the

[5] Communication to the author from member of special investigating commission.

transference he can establish, and the reassurance he can give. In military aviation, the time involved in dealing with such patients is usually not available as a routine procedure. In the case of the peacetime flier and in key personnel, it might be.

SUMMARY

The foregoing review constitutes a general description of the neuropsychiatric ills to which the flier is heir. It is easy to recognize the fact that leaving the earth for the alien environment of the atmosphere produces no new syndromes. The individual personality continues to react with its environment in much the same way, regardless of what the environment may be. Some environments may contain more situations of stress and hence be productive of a relatively higher incidence of neurotic reactions than are others. The person's response to stress tends to be the same regardless of where he may be. Since this is true, it goes without saying that the neuropsychiatric problems of the peacetime aviator are qualitatively the same as those of the combat flier. Quantitatively, there may be some difference.

The most important point to bear in mind is that the best treatment of these reactions is prophylaxis. In war, this is vastly more difficult than in peace. All fliers should be assured of adequate rest and relief from flying duties so that they do not become "stale." Adequate recreational outlets for the increased tension borne in the air must be provided and encouraged. Early symptoms of impending neurotic disorders and psychosomatic disturbances must be promptly recognized, their basic origin determined, and appropriate psychotherapy begun before irreversible behavior patterns are established. The physician must be aware of the potentialities present and not be content to give the patient ever-changing symptomatic treatment. In short, the intelligent management of the neurotic flier is the same as the intelligent management of all other neurotics. It follows that the procedures of mental hygiene are also the same.

A final word of warning is in order concerning an old fallacy that all neurotic disorders might be prevented in fliers and others by proper selection of personnel. The experience of the war has shown this not to be true. This is because even the most stable and well-adjusted personalities do not represent perfection. Consequently, there is always a weak spot in the personality armor which may succumb only to a specific stress to which it is sensitive. It is impossible to predict whether or not the individual will be exposed to the specific stress he cannot tolerate. In some, of course, the weak spot is large. In others, it is small. So-called predisposition is important, therefore, in a quantitative sense, but to a considerable degree all individuals are predisposed.

Another fallacy exploded by the war is that the known neurotic cannot

fly successfully. The report by Hastings, Wright, and Glueck [6] on 150 successful combat pilots, 50 percent of whom had histories of preexisting instabilities sufficient to be considered evidence of neuroticism by most standards serves to emphasize this point. In many cases, flying itself may afford the person relief from his basic conflicts and an outlet for his basic anxieties. This is not meant to imply that neuroticism is a favorable characteristic. All things being equal, the efficiency of the nonneurotic is likely to be greater than is that of the man who starts any activity with a neurosis already established.

[6] Hastings, D. W., Wright, D. G., and Glueck, B. C.: Psychiatric Experiences in the Eighth Air Force, First Year of Combat (4 July 1942–4 July 1943). New York: Josiah Macy, Jr. Foundation, 1944.

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CHAPTER XXV

The South Pacific and Southwest Pacific Areas[1]

Maurice N. Walsh, M.D.

In the early months of the Pacific campaigns, psychiatric disorders arising in personnel of the AAF (Army Air Forces) were cared for in Army hospitals by Army personnel if a flight surgeon of a unit felt unable to diagnose and treat the condition properly. This had the disadvantage that the personnel involved were placed in the hands of individuals who were unfamiliar with the special problems and activities of the air force, in which they usually tended to show little interest.

NEED FOR A NEUROPSYCHIATRIC FLIGHT SURGEON

In the South Pacific Area, AAF psychiatric casualties were passed through Army hospitals down the chain of islands to either New Hebrides or New Zealand, whence they were usually evacuated to the United States (map 25). A considerable number of AAF personnel on leave in New Zealand sought psychiatric consultation at the Army hospital in that area, sometimes on the advice of the flight surgeon stationed in the leave area in Auckland, New Zealand, and sometimes of their own volition. The psychiatrist assigned to this hospital was thought to have a somewhat romantic attitude toward the mission of combat personnel and particularly those in the air force. Thus, many air force personnel "turned themselves in" to this hospital during the leave period in New Zealand, and did not return to the islands with their crews or squadrons. This created a difficult situation in the air force, since some personnel who really needed psychiatric help were too proud to obtain it under these circumstances and instead returned to their units in poor condition for further duty, while others secured a one-way ticket home by avoiding further combat responsibilities.

As a result of this situation, a request was made to the Zone of Interior for a psychiatrist who was also a flight surgeon. In response to this request, the writer was flown to the South Pacific Area in September 1943.[2] After arrival in New Caledonia and a conference with the commander of the Thirteenth Air Force and the air force surgeon, the writer reached Guadalcanal. This was to be the first base of operations for the Thirteenth Air Force. After a short orientation period, visits were made to the various units scattered on many islands of the Solomon chain. It was soon clear

[1] See also part III, "Pacific Areas."

[2] This chapter covers the period between September 1943, when I arrived in the South Pacific Area, and April 1945, when I returned to the United States from the Southwest Pacific Area.

that it would be impossible to maintain a consultation or psychotherapy service with any degree of regularity because of the widespread location of the bases and transportation difficulties. Accordingly, a small diagnostic and treatment center was set up on Guadalcanal; to this was added, in June 1944, a research unit (the Second Central Medical Establishment (Special)) for the purpose of studying special conditions obtaining in air force personnel in the South Pacific Area.

FACTORS THAT LOWERED MORALE

Several factors which had a marked bearing on morale became apparent immediately. The Thirteenth Air Force was conducting offensive operations with a force hardly adequate for a holding operation. Replacements were few and the number of available airplanes was small. The targets being attacked had been hit for several months with apparently little effect, since the Japanese appeared to be able to repair damage and rapidly move in new airplanes to replace those lost. The Japanese treatment of prisoners was notoriously brutal, and the practice of strafing airmen who had bailed out of disabled planes was well known. Living conditions in most places were uncomfortable because of the hot, moist climate and restricted supplies in forward areas. Food was unpalatable and monotonous. Boredom was common because the wild and relatively unpopulated character of the islands of the Solomon chain, inhabited only by a sparse population of primitive Melanesians, did not provide any opportunity for varying the daily routine by contact with a civilian population. Recreational facilities were markedly limited.

Rotation policies for flying personnel varied widely among units. In the bomber and fighter units, a point system, with credit given for each combat mission, had been set up. However, later experience proved that the figure set as a goal was based upon an overoptimistic estimate of the number of aircrew replacements available. Thus, many men with high point scores were still flying combat missions long after they had been encouraged to expect a return to the United States, with a consequent lowering of morale. Promotion policies varied widely; in general, nonflying administrative officers were often promoted faster than the combat flying officers of the air force and usually enjoyed more comforts. In heavy bomber units employing the B–24 airplane, anxiety was expressed openly regarding the danger of ditching this airplane in the sea, since it nearly always broke up and some of the crew were drowned. The ground personnel of the air force, while not under fire except for occasional bombings, were exposed to intense boredom, uncomfortable living conditions, and a poor rotation policy.

INADEQUATE PSYCHIATRIC FACILITIES

Psychiatric facilities for Thirteenth Air Force personnel were furnished by the general hospitals or station hospitals adjacent to the various installations. The psychiatrists assigned to these hospitals varied widely in their training, and most were so occupied with the routine disposition of cases that little time was available for treatment of individual problems and little interest was shown in the special problems of air force flying personnel.

The nearest approach to an organized psychiatric center for the treatment of anxiety states in combat flying personnel was found in Auckland, which was the rest leave area for the Thirteenth Air Force. Here, 1,500 miles from the zone of operations, a pleasant air force rest home had been established several months previously with the cooperation of the American Red Cross. A flight surgeon was in residence.

Each combat crew was permitted a 10-day visit to the rest area, approximately every 3 or 4 months. Those men with psychiatric complaints were hospitalized in the adjacent Service Forces general hospital. Here, an attempt was made to give them individual attention, and a psychiatrist was in charge of the psychiatric division. His task was rendered difficult, however, because of his unfamiliarity with air force problems and the actual combat situation in the Solomon Islands. However, it was apparent that a large number of air force men with anxiety states, even with the best psychiatric treatment, could not be rehabilitated for further combat duty after being transported so far from the combat zone and hospitalized luxuriously in a beautiful structure adjacent to a large modern city. Such a milieu differed violently from the environment of the Solomon Islands. A marked loss of desire for further combat and a tendency to regress to more dependent attitudes usually followed hospitalization under these conditions. As a matter of fact, the major loss of personnel from psychiatric disorders occurred among those personnel evacuated to New Zealand for treatment, since the psychiatric treatment was necessarily given at a disadvantage.

EFFORTS TO COMBAT PSYCHIATRIC PROBLEMS

Accordingly, in conjunction with Col. Frederick J. Frese, Jr., MC, surgeon of the Thirteenth Air Force, it was recommended that all personnel leaving the Solomon Islands be given a physical and psychiatric screening before being permitted to embark for New Zealand on leave, and that those requiring hospital or psychiatric treatment be treated in the forward area as soon as possible after the development of symptoms. This treatment was to be given in a treatment center to be set up as near the actual zone of operations as deemed advisable. Appropriate recommendations were sub-

mitted to counteract the aforementioned conditions considered destructive of morale.

Diagnosis of anxiety states in flying personnel as "psychoneuroses" was discouraged because of the unfortunate connotation of the term in military circles. The euphemistic term "operational fatigue" was considered at the time to be a preferable working diagnosis. It was recommended that diagnosis, treatment, and disposition of all psychiatric conditions arising in air force personnel, with the sole exception of exhaustion states, be carried out in the zone of operations and that, when necessary, evacuation to the United States be made from this zone. Treatment of anxiety states was to be carried out without formal hospitalization, if possible. This was necessary since the air force was permitted no hospitals in the Pacific theaters, and proper psychiatric treatment for the special problems of AAF personnel was at times difficult to obtain within the framework of the usual ground force hospital. These recommendations, in general, were carried out and resulted in a gratifying reduction in the loss of personnel from emotional disorders.

It was evident that preventive psychiatry would play a large part in solving the problem which was presented. The wide scattering of units over many islands and bases and the varying attitudes and opinions of the unit commanders, who were permitted great discretion in handling personnel problems arising in their commands, rendered the adoption of uniform policies difficult. The scarcity of trained flying personnel and the small number of replacements rendered imperative the use of flying personnel to the point of fatigue and that, for military reasons, men be kept at combat flying past the period of maximum efficiency, even in cases in which medical judgment would ordinarily dictate their being grounded.

About the time that certain of these policies began to take practical form, a forward movement occurred in the South Pacific theater, with the capture of the beachhead and the building of airfields on Bougainville Island in November 1943. The morale of the flying personnel of the air force rose noticeably even though the principal target attacked—the heavily defended port of Rabaul on New Britain Island—was responsible for increased losses. Psychiatric disorders due to combat flying decreased at the same time. The deadlock was believed to be broken. The further movement forward with the invasion and capture of the Admiralty Islands and the moving of AAF units to bases on these islands in the spring of 1944 caused a new lift in morale and a further decrease in disorders due to combat, even though the new target, the Japanese bastion of Truk, required unescorted bomber flights to the very limit of fuel capacity. Also arrival of replacements permitted a more liberal rotation policy with a consequent decrease in exhaustion cases.

PROBLEMS OF THE CONSULTANT IN NEUROPSYCHIATRY

In general, the problem of psychiatric disorders in either the flying or the ground personnel was probably statistically not a major one. Since the flying officer personnel were volunteers, the automatic selection factor thus afforded was sufficient to select highly motivated, competent individuals of strong character, with rare exceptions which will be considered later. Nevertheless, this problem had important implications to account for the request for a consultant in neuropsychiatry in this area.

The ambiguous situation of the neuropsychiatric consultant to the air force was reacted to variously by different commanders. A widespread fear existed that the AAF personnel would be babied, appealing to the psychiatric consultant for relief from duty when it might not be really necessary. As a matter of fact, this rarely occurred, although the possibility that such might take place if the psychiatric consultant were to encourage such a procedure is, of course, undoubted.

Attitudes encountered among the AAF commanders varied widely. While one commander showed great interest and encouraged every effort to treat and rehabilitate air force personnel suffering from emotional difficulties, another commander insisted that emotional difficulties did not exist in his command and, therefore, no treatment could possibly be necessary. Thus, the neuropsychiatric consultant was given other duties by his commander, which were intended to so occupy his time that he would have little or no opportunity to investigate or treat emotional disorders.

Most commanders, however, appeared neither to encourage nor to discourage work of this sort; since it did not appear to them as a major problem, they simply felt that it did not require their serious attention. All commanders recognized the necessity for a period of rest in a more temperate climate and a more populated area than the tropical, sparsely populated islands where living conditions were so uncomfortable, and in themselves contributed to the stress of adjustment to combat conditions.

The neuropsychiatric consultant had to organize his efforts as a pioneer. No one knew what could be accomplished. Most commanders took a pessimistic attitude, especially on first assuming command, of the possibilities or need of any attention to emotional disorders among personnel.

The military psychiatrist is necessarily in some conflict within himself. He is expected not only to treat men who have become emotionally disturbed as a result of war but also to help maintain the emotional and mental health of those who have shown no disturbance as yet. His training in the study of the human personality, if it has taught him anything, must have impressed him with the uselessness of violence for the solution of problems; yet he is committed to an organization which is dedicated to an endeavor to solve conflicts by this means.

The psychiatrist in the military forces has two roles—his first, a

physician; his second, a military officer—which conflict in various respects. This dual role, as Simmel [3] pointed out, has important dynamic implications. In his first role, he is looked to by his men as the good father representative from whom protection from the holocaust is demanded; in his second role, he is expected to drive men back into the fire and, thus, inevitably becomes the representative of the bad father. This duality of role is accentuated in the case of the military psychiatrist. It is difficult under any circumstances to reconcile such divergent demands.[4]

After a preliminary survey, it was apparent that multiple functions would have to be filled by the neuropsychiatric consultant in carrying out his mission. In actual practice, four major areas of function existed: (1) Prevention of psychiatric disorders through advice in improving morale, adequate rest leave, rotation, and lifesaving policies; (2) diagnosis and treatment of psychiatric disorders; (3) research; and (4) teaching unit physicians the rudiments of prophylaxis, diagnosis, and treatment of emotional disorders.

Combat personnel on the way to leave were screened first in the South Pacific Area and later in the Southwest Pacific Area (fig. 91). The screening center, located at a base accessible to and not far removed from the forward bases, moved forward as the war advanced. The facilities were of the simplest, merely a few tents and basic examining equipment. The pilots and other aircrew personnel passed along from tent to tent through an assembly line type of procedure. They were questioned by Medical Department enlisted men who were selected for their intelligence and educational background, about diseases suffered in the forward area, about injuries, and about accidents. This material was then evaluated and reviewed. Additional data were obtained by a flight surgeon; a physical examination was performed, including examination of the ear, nose, and throat, and eyes, if necessary; chest, abdomen, skin, blood pressure, and extremities; a malaria smear and blood count were obtained, if necessary.

In another tent, a superficial type of psychiatric survey was conducted and the individual's emotional status estimated. Material forwarded by the flight surgeon of the unit was reviewed and all of these data were assembled and passed on by the flight surgeon in charge of the examining team. If no impediment existed, the individual was sent to New Zealand in the South Pacific Area or to Australia in the Southwest Pacific Area for 10 days' leave, with a supply of Atabrine (quinacrine hydrochloride) to forestall occurrence of any malarial outbreak in the leave area, and where desired, with prophylactic advice and equipment for the prevention of venereal disease.

A leakage of personnel to the rear areas or to the United States was

[3] Simmel, Ernst: (Contribution to) Psychoanalysis and the War Neuroses. London: International Psychoanalytic Press, 1921.

[4] Inevitably, the attitudes displaced or projected onto the psychiatrist will serve to diminish his therapeutic effectiveness in many instances; while in others, he may successfully produce transference cures despite this handicap.

FIGURE 91.—Maj. Don T. Morris, MC, neuropsychiatrist at 99th Evacuation Hospital, Valencia Air Strip, Mindanao, P.I., interviewing a patient in his office, May 1945.

thus eliminated. Those individuals selected for psychiatric or medical treatment were given the appropriate therapies in the forward area and allowed to go on leave only during their convalescent period. The philosophy behind this procedure was for healthy people who were fatigued; sick individuals were either cared for in the forward area, or evacuated to Hawaii—or to the United States if this was impossible—rather than passing the responsibility to the medical personnel in the leave area. This produced a healthier attitude toward leaves as well as to the retention and treatment of psychiatric casualties in the forward area; hospitalization was left to the judgment of physicians familiar with forward area conditions. This was a significant contribution made during the South Pacific and Southwest Pacific campaigns to psychiatry in the air force.

Leave policies in general varied widely. While there were units in which commanders showed concern about their men and interest in their welfare, and lived very simply with them, there were others in which this was not the case. Certain senior commanders had built comfortable houses or native huts in which they lived in grand isolation while the combat AAF men existed in great discomfort. The neuropsychiatric consultant had to be careful not to play into the hands of malcontents by criticizing their com-

manders. Nevertheless, occasional visits to units, with a tactful investigation of living conditions, morale, and general personnel policies, were at times helpful. Through these visits, it was occasionally possible to bring to the commander's attention the attitudes of his men and to interpret them to him in the interest of an improvement in his treatment of them, if this appeared necessary.

No statistics exist regarding the proportion of the various types of neuropsychiatric disorders encountered in the air force in the South Pacific and Southwest Pacific, as a result of loss of records due to factors beyond control. Thus, impressions will have to be relied upon.

PSYCHIATRIC EVALUATION OF AIR FORCE PERSONNEL

In the early phases of the Pacific campaign, because replacements were few, it was necessary to utilize, to the very limit of exhaustion, personnel who were living in unfavorable and at times unhealthy conditions. The disposition of these men varied according to the commander involved. In general, in most units, valuable combat flying personnel were handled sympathetically, either being grounded and given various assignments until they could be rotated to the United States, or given rest which would permit them to recuperate and finish their tour of duty. However, this was not always so. Some men faced the alternative of continuing on full duty or of being hospitalized as neuropsychiatric patients and evacuated to the United States (figs. 92 and 93), with the implication that this was a disgraceful method of avoiding further duty.

In general, the flying personnel of the air force, being volunteers, appeared to possess relatively well-integrated ego structures and to stand up to the stresses imposed by ordinary combat conditions with comparatively few disorders.

It seemed that this was particularly true of the first pilot of the bomber unit or of most fighter pilots. Psychiatric disorders were progressively more frequent in copilots, navigators, and bombardiers. This had something to do with the fact that many navigators and bombardiers had "washed out" in pilot training because they lacked self-reliance or flying aptitude; and many had less adequate personalities.

Enlisted men of the flying aircrews showed in general a greater tendency than officer personnel to develop emotional disorders, but not to a marked degree, an exception being noted in airplane mechanics who, despite poor living conditions and chronic overwork, appeared to derive such satisfaction from their work that emotional problems were rare.

As far as the aircrews in general were concerned, most individuals with inadequate, weak ego structures had been "weeded out" or had eliminated themselves before arrival in the combat theater. Individuals with severe personality disorders, who had forced themselves to continue flying

FIGURE 92.—Air evacuation patients from the 35th General Hospital, Nadzab, New Guinea, ready for the flight to the United States, October 1944.

until they arrived in the overseas theater, usually eliminated themselves shortly after arrival.

However, the myth that a "normal personality" is essential for adjustment to combat conditions should be discarded. In observations among the combat personnel in the Air Forces, including pilot officers and officers in responsible command positions, character disorders approaching the delinquent type occasionally occurred. At times, these disorders were helpful rather than harmful in adjusting to the peculiar conditions encountered in the combat air force, provided, of course, that adequate ego defenses existed to prevent the individual from being overwhelmed by anxiety or from destroying himself.

The classic symptom neuroses were rarely encountered among flying personnel, most of them having been detected and having been the basis on which the individual was eliminated during the selection or the training period. As just mentioned, character disorders of a moderate degree with mild to moderate delinquent or compulsive traits were not necessarily

FIGURE 93.—Flight Nurse M. Haynes checking patients off list before departure of the plane from Nadzab, New Guinea, to the United States, October 1944.

unhelpful but, on the contrary, appeared at times to be useful in adjustment to military flying conditions. The same could not be said of hysterical, conversion, or psychosomatic symptoms, which were correspondingly rare. Some individuals arrived in the overseas theater and were overwhelmed by anxiety at the prospect of entering the combat zone; this resulted in their grounding and, in extreme cases, in their evacuation to the United States through hospital channels. Occasionally, exposure to a particularly grueling combat situation resulted in mobilization of such incapacitating anxiety that the individual could no longer continue his combat flying duties. Upon investigation, he usually turned out to possess a weak ego organization with a poor social adjustment, poor object relations, and a tendency for acting out. Such an individual will be described later.

Phobic disorders were seen occasionally. If the phobia were a generalized one involving flying, the individual rarely reached the combat zone in an active-duty flying status. More often, although uncommon as far as the overall picture was concerned, the phobia concerned flying a particular type of airplane, the flier stating that he could continue to fly in any other air-

plane but one particular type—the type in which he was actually engaged in flying. Psychiatric examination invariably demonstrated, however, a latent anxiety and an endeavor to control the anxiety by limiting the conditions under which it might be experienced, such as a change of organization, or a change of type of airplane which would mean a transfer to another organization. Almost always, this solution broke down rather shortly, and the individual was again overwhelmed by anxiety in his new organization and had to be grounded.

Such personnel were usually sympathetically handled by commanding officers. They were either grounded or transferred to organizations where transport flying could be done and some use made of the flying training. Most often, they were transferred to noncombat organizations where they could serve as operations officers in air transport operations. As a rule, they were not humiliated by the commander, although they usually felt so, and they were not cruelly treated. This procedure was often carried out without reference to the AAF neuropsychiatric consultant, but rather through a flying evaluation board or on the advice of the squadron flight surgeon, who felt that he was protecting the man from further self-depreciation by not securing psychiatric consultation. While many senior flying officers expressed strong disapproval of this course of action, nevertheless it was the one usually adopted.

Psychotic episodes occurred occasionally. These were usually hysterical psychoses or schizophrenic episodes resulting from the stresses incidental to danger to life in the combat zone. They were usually of short duration and responded favorably to removal from the combat area to a safe and neutral hospital environment. Interestingly enough, a few cases among those noted occurred in the leave area before an anticipated return to the combat zone.

REPORT OF A SPECIAL CASE

Sometimes fatal consequences ensued when psychiatric consultation for flying personnel was not sought early enough to prevent tragedy. The flight surgeon of a fighter squadron sought out the air force neuropsychiatric consultant for advice regarding one of his pilots. This man was known as a competent pilot; however, he had never mingled with the men in his group, always tending to be seclusive and somewhat silent and suspicious. He avoided the flight surgeon but, in general, had performed his duties in a competent, but not outstanding, manner. His squadron commander and his mates had noticed an increasing tendency toward seclusiveness and moroseness in the preceding weeks. He spoke of a wish to return home, when he spoke at all, and evidenced resentment toward those in command, who he felt were responsible for prolonging the war and for not providing an adequate rotation policy. He was unmarried, the only son of somewhat

elderly parents to whom he wished to return. Within the previous 2 weeks, he had been observed secreting food in his tent. When the flight surgeon had sought him out, he denied any tension or outstanding problems other than his strong desire to return home, having "lost his taste for further combat experience in the South Pacific."

It was strongly recommended to the flight surgeon that a consultation be arranged for this man; if this were not possible, because the group was planning an early move, it was recommended that he be grounded and sent to the AAF diagnostic center for further study. However, the flight surgeon, after further consultation with the pilot and the squadron commander, thought that this might result in disgrace before his mates; the squadron commander concurred that it might be best to wait and see what happened. Within a week following this conversation, the pilot disappeared from his quarters and could not be found. His plane was also missing. Inquiry elicited the information that he had taken off, without orders, in his plane. His hoarded food was missing from his tent as were certain elements of his equipment. He did not return and was not seen again.

Within a few days, information was received from the chief of a tribe of Polynesian natives located on an island which was off limits to all military personnel, since there were no military installations thereon. There had been strong indications that men wished to visit this island because of the light color of the natives, different from the surrounding Melanesian populated islands. The chief had sent word by canoe to the nearest New Zealand colonial administrator that a fighter plane of the type flown by the missing pilot had appeared off the island at approximately the time which would be required by a flight from Guadalcanal. This plane had circled the island several times, dipping low on occasion apparently to attract attention. Finally, after some time had elapsed in these maneuvers, the plane had stalled and crashed into the ocean, where it sank with no survivor. In retrospect, it seems likely that this pilot's symptoms had represented an oncoming psychosis and that prompt grounding and consultation might have resulted in saving his life. However, squadron commanders often felt under pressure to retain highly trained personnel on duty and felt justified in taking some chances in doing so.

THE PSYCHIATRIST AND LINE PERSONNEL

It was difficult, and at times impossible, to overcome suspicions of line personnel that the psychiatrist was attempting to baby military personnel or to find some psychiatric condition which would permit them to escape further combat duty; or on the other hand, to diagnose some mysterious psychiatric condition which actually did not exist, but which would stigmatize the individual concerned. Such attitudes, naturally, were found most frequently in the less well-informed and less well-educated officers, but

were not limited entirely to this group. The discomforts of tropic living and the close personal contact which inevitably accompany combat tours in the hot islands, where there was little recreation and no opportunity to escape from contact with the same persons day after day, brought to the surface many resentments and irritations. Suspicion of the motives of others became prominent and, in some cases, reached a paranoid level. These were not necessarily incompatible with further continuation in combat, however, and probably represented simply exaggerations of already present character traits. In fighter and bomber groups, loyalties between squadron mates or crewmembers also were responsible for the attempted concealment of psychiatric disorders, at times long past the point when they should have received attention.

However, the more enlightened commanding officers and flight surgeons tended to seek early help with emotional difficulties. An illustration may be made of a fighter pilot who refused to fly further in combat. This man, in his early twenties, had been a valuable combat pilot known as a steady fighter pilot with no victories but a valuable wingman who had given excellent service. Interview with him elicited the fact that his refusal to fly followed a crash due to an emergency landing on a small island airstrip controlled by another service. His plane had been disabled in combat and he had no choice but to land at this airstrip. It seems that the commander of the airstrip had become irritated at what he considered undue and frivolous activity of the enlisted and officer personnel in making small boats from discarded wing and belly gasoline tanks; he had issued orders that no further boats were to be constructed and that those already constructed were to be destroyed, leaving only a crashboat in operation.

On the day preceding this officer's crash landing, another crash landing had occurred in which the plane overshot the runway, plunged into the sea, and the pilot drowned before the crashboat, which was out of order, could reach him. The patient's opinion was that, had there been the usual number of small improvised craft in the lagoon, the pilot could have been saved. When the patient crashed, his plane also overran the runway but stopped in shallow water and he was able to extricate himself. He was indignant when he was not removed from his airplane immediately as it took some time for the crashboat to reach him. When he was informed of the action of the commander of the airstrip, he abruptly refused to fly further missions, stating that, if such arbitrary and dangerous policies were to exist, he could see no reason for further fighting for an organization which would permit such practices to continue.

Interviews were carried on over 2 or 3 days with this officer; superficial therapy aimed at permitting him ventilation caused his anxiety to subside enough so that he could return to flying. As he expressed it, "If the Air Force had enough interest to provide a psychiatrist to help me, then I can forgive them for the lapses which occurred." It was called to

his attention that the airstrip in question was not controlled by the air force, but by another service which was considered to be notorious for permitting arbitrary officers to remain in command. He was reminded that his commander had tried to help him and had actually made a formal complaint of the policy on the airstrip, for which he was also grateful.

This man, whose ego structure was in general intact, was suffering from a feeling that, as a member of a minority group, he was not given the consideration enjoyed by those who came from other ethnic groups. When it was pointed out to him, however, that all pilots were in the same danger in landing at this airstrip no matter what their ethnic origin, he was forced to agree with this. It seemed clear that he felt abandoned by the father figure to whom he looked for protection; that is, his commanding officer. This appeared to relate to his feeling that his own father had been overly authoritarian and not very understanding. He was proud that he had made his own way since childhood and had voluntarily returned to college, accepting help offered by his father. He claimed, however, that he had accomplished this with no help. When it was pointed out that actually he had been receiving help from his father, which was freely given without any strings attached, in gaining his college education, he was forced to admit that this was true. It seemed evident that the role of the friendly father figures, in the persons of his squadron commander and air force consultant, were important in reestablishing his confidence that he was watched over and cared for; with this assurance, his anxiety level subsided and he was able to return and finish his combat tour. His lack of success in shooting down enemy planes was probably related to his inhibition in expressing aggressive feelings of his neurotic conflict regarding his father, but adequate data could not be secured to substantiate this.

THE USE OF NARCOSYNTHESIS

Much interest was aroused during World War II by the intravenous injection of Pentothal Sodium (thiopental sodium) to produce a state of partial impairment of consciousness; this enabled the patient to reexperience a traumatic situation, to assist the discharge of dammed up affects given rise to by the trauma; that is, to abreact warded off or repressed affects. This was described by Grinker and Spiegel;[5] they called it the technique of narcosynthesis. Experience demonstrated that this technique had little or no value except in cases where a recent trauma, which could not be recalled to full consciousness because of its distressing nature, had been experienced. It is not certain that the technique actually performed anything which could not be carried out by more or less prolonged psychoanalytically oriented psychotherapy, which of course was rarely possible in the forward zone. There was, however, an economy of time and, also,

[5] Grinker, Roy R., and Spiegel, John P.: Men Under Stress. Philadelphia: The Blakiston Co., 1945.

advantage that the technique might be useful if employed by only partially trained psychiatrists.

The case which follows illustrates the development in an individual with strong ego structure of an acute anxiety state following an unusually harrowing experience and requiring a relatively short period of psychotherapy in the forward area. This case also illustrates the fact that terrifying traumatic situations can sometimes be endured by relatively stable individuals.

A first lieutenant, age 25, was piloting his heavy bomber plane on a bombing strike over a large Japanese base on his 10th mission, when it suffered two direct hits by flak. As he signaled to abandon the plane, the tail broke off and the plane went out of control and began to spin. According to crews of other planes in the formation, the plane then exploded in a huge cloud of smoke, and disappeared. The pilot did not remember the explosion but recalled regaining consciousness while falling through the air, and pulling the ripcord. His chute immediately opened and he noted pieces of wreckage falling around him. He saw one parachute coming down over the land and two over the water. He landed in the rough water near another survivor and, for 2½ hours, floated supported by his lifevest. He was picked up by a rescue plane and flown back to a seaplane tender. Here a superficial wound, caused by flak, in the lateral surface of the middle third of his left leg, was dressed. The left foot was weak and numb for 2 days. He was given food and a sedative, but did not sleep at all the first night. On the following day, he was flown to an airbase hospital. He remained in the hospital one week and slept well with sedatives. He was discharged from the hospital, feeling "better than at anytime since." He was then returned to his organization where he was permitted to "lay around" his quarters.

After a few days, he began to think of what might have happened About this time, he noted increasing irritability and insomnia. He dreamed of being in an airplane which was exploding in midair, of parachuting out and his chute failing to open, and of falling into enemy hands. He awoke frightened and had difficulty in going back to sleep. His appetite became progressively poorer. A short time later, a bomber on takeoff crashed and exploded with a loud blast, killing the entire crew, including his two roommates. The death of his roommates depressed him and he lost ambition to try to keep himself busy. Since then, he jumped uncontrollably at loud noises and lost his desire to fly. He had never been known to exhibit psychogenic symptoms previously.

He was a small, slight, chubby faced individual, unusually intelligent and well informed, appearing to be about 19 or 20 years of age. He was depressed, anxious, and disinclined to talk. There was a well-marked startle reaction. A slight weakness of dorsiflexion and hypesthesia of the anterior

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lateral surface of the left foot indicated a mild injury of the left peroneal nerve. His physical examination was otherwise negative.

He was born in a small town, the next oldest of five children. The home was described as happy. He was brought up in a religious atmosphere. Always sociable, he had many close friends. After graduating from high school, he worked in the composing room of a newspaper office. Following this, he worked with the National Youth Administration until he entered the Army. He volunteered for pilot training as an enlisted man.

When first seen, he was tense, anxious, and mildly depressed. He volunteered little information concerning his experiences and symptoms, but rather reluctantly answered questions about them. After relating the traumatic experience in detail, which required considerable urging, he appeared somewhat less depressed. He appeared to have no guilt concerning the loss of his crewmembers stating, "I couldn't have done anything different than what I did." He quite evidently disliked to recall the horror of his experience and its attendant suffering.

The impression was gained that he was a stable, well-integrated personality with a moderate anxiety state and a mild reactive depression. He was evidently suppressing painful, emotion-laden material arising from a traumatic experience. Psychotherapy produced some improvement in the first few interviews.

It was evident, however, that desensitization to his traumatic experience was necessary; accordingly, narcosynthesis with Sodium Amytal (amobarbital sodium) was given on the following day. He relived the traumatic experiences in detail.

On the day following the narcosynthesis, he appeared much less depressed, more at ease, and definitely less tense. He voluntarily again discussed his experience and evidenced much less anxiety concerning it. After several more interviews extending over several days, during which his depression cleared, he was considered well enough to go on leave. Upon return from leave, he was returned to his organization. He shortly thereafter was returned to flying duty and, at first, flew the group transport on routine flights. Later, he began to fly four-engine bombers and, when last heard from, was considering a return to combat flying, but had not yet been ordered to do so.

The neuropsychiatric consultant was undecided whether to recommend this patient's return to the United States for further rest and rehabilitation or to recommend his retention in the theater for flying duty. An almost immediate return to flying was believed necessary if this officer was to return to flying duty. He had had comparatively little combat time and wished to remain in the theater. Accordingly, he was given psychotherapy by the AAF neuropsychiatric consultant without admission to a hospital, and a return to flying duty was possible.

Another successful therapeutic result follows. During an aerial combat

over a Japanese base, a 23-year-old waist gunner in a B–24 saw the other waist gunner, an older man, shot through the head by a 7.7 machinegun bullet. Just previous to this, the other gunner, his friend, had destroyed a Japanese fighter. His gun ran out of ammunition and he went to feed ammunition to his friend's machinegun when the latter was hit. The friend fell into his arms where he remained bleeding profusely until he died. Much of his blood covered him; he was badly shaken and extremely tense. He remained beside his friend's body on the long flight back to his base. Upon landing, his flight surgeon gave him a sedative. He ate very little for 2 days.

For several days, he continued to be tense and anxious and his sleep was broken. He had frequent nightmares of his buddy, of tracers, and of falling planes, especially the B–24 that had been shot down during the battle. While awake, he often thought that he recognized his friend in the messhall and in other places that he frequented, only to find it was someone else. He complained of headaches when "scared"; his head seemed to "bulge out" and the blood seemed to rush to his head.

He was grounded, given psychotherapy by his flight surgeon for a week, and then evacuated for consultation with the AAF neuropsychiatric consultant.

A preliminary history demonstrated no striking features. The patient's background, both in the Army and in civil life, had apparently been inconsequential until this time. Before entering the Army 20 months before, he had worked for a laundry. After entering the Army, he had been an engineer on the line until 3 months before when he became a gunner. His flight surgeon considered him to be a steady, reliable gunner who had at times exhibited mild anxiety symptoms, but never sufficient to incapacitate him. He had been relatively healthy throughout his life. There were no emotional disturbances or disorders in his or the family's past; however, during childhood he ran away from home on two occasions because he "wanted excitement." He had attended high school for 3 years and left because his family needed financial help. His psychosexual development and drive were normal.

He recently had been jealous of his friend and secretly resented him. His friend's death and the horrifying circumstances attendant upon it, together with the recent threat to his security, had been sufficient to precipitate an acute anxiety state. He was anxious and tense, mildly depressed, and did not wish to return to flying. He had unconsciously identified himself with his dead friend and felt that he, too, might die as an atonement. He felt some guilt regarding his friend's death, and wondered whether his friend might not still be alive had he been a better gunner.

The impression was of acute anxiety state (battle reaction) in an individual with mild depression, guilt feelings, and guilt reaction to the

death of a friend. Narcosynthesis was given and the traumatic situation was relived in full detail, with much abreaction of emotion.

Following the narcosynthesis, he was much less anxious, and with daily psychotherapy for several days, he improved sufficiently so that he was returned to his organization for flight duty.

After returning to his squadron, he wrote to the consultant that he had flown 10 strike missions, some of them quite hard missions with heavy interception. After one mission near the site of the air battle in which his friend was killed, he showed some apprehension but continued combat flying.

OTHER SUCCESSFUL AND UNSUCCESSFUL THERAPIES

The following case illustrates the successful result of fairly prolonged therapy of a subacute anxiety state, rarely possible in the forward area:

A 25-year-old copilot of a heavy bomber on his 17th strike was hit by fire from a Japanese fighter over a heavily defended Japanese base at nearly maximum range from the nearest friendly base. The strike was made without fighter cover and the interception was heavy and lasted for an unusually long time. Many miles from base, the pilot made an excellent water landing and all personnel escaped from the plane. The pilot suffered a fractured leg. He escaped from the plane but remembered little of the crash except his terror and fear of being trapped in the sinking plane.

After an hour in the water, he was picked up by a Navy rescue plane and brought to a naval hospital where he was given a drink of whisky and food. That night he was given some sedation, but did not sleep well. The following day, he was flown back to his base; he stated that he was very tense during the landing of the airplane. Afterward he rested at his base a week, during which time the thought of flying produced a feeling of marked anxiety. During this period, he had several terror-filled dreams, in one of which he dreamed of crashing in an airplane. A few weeks previous to this, a loaded bomber had crashed on takeoff, killing one of his best friends. Since that time, he had expressed apprehension about flying.

He was sent on leave by error. Upon arrival in the leave area with his crewmates, he began to drink heavily; about the fourth day of his leave, it was necessary to hospitalize him for 3 days because he refused to go to bed, wishing to spend both day and night at parties and expressing great irritation when his comrades refused to accompany him. The description of this episode suggested the occurrence of a mild manic reaction, which subsided rapidly with rest while he was in the hospital.

Upon return from leave, the crew stopped off at an intermediate base because of darkness. Here, he approached a flight surgeon and stated that he could not force himself to go back to combat. His crew then departed without him and he was referred to the AAF neuropsychiatrist.

Of slight, but wiry build, he was intelligent and somewhat introspective. He was reserved in his contact with his crewmates and, according to them, was of a moody and variable temperament. Occasional bouts of alcoholism lasting a few days had occurred before departure for overseas. He enjoyed the company of girls and, when slightly intoxicated, became much more sociable. When quite intoxicated, however, he became somewhat overbearing and stubbornly resisted any attempt to influence him.

He was known to be a good and valuable copilot, who had comparatively little first pilot time, as he did not feel competent to take the responsibility for the airplane and the men's lives.

When seen, he was downcast, depressed, and self-accusatory. He stated that he felt as though he had "a pressure on his mind" and could not think clearly. He felt much guilt at his inability to continue combat with his crew, was ashamed of his fear, and considered himself a coward. He complained of frequent "crazy disconnected dreams" about which he could remember little. He exhibited a mild startle reaction, and complained of weakness, insomnia, and anorexia. A mild sympathetic stimulation was evidenced by dilated pupils, pallor of skin, and rapid pulse. His physical examination was otherwise negative.

He was born in a rural area, the next oldest of six children. His father had complained for years of stomach trouble, without any apparent damage to his health. There was no other history of psychosis or psychiatric disorder in the family. He stated that his home life was happy, but that financial difficulties had produced some insecurity feelings as a child.

He went to work in a cotton mill at 15 years of age. After graduation from high school, he returned to work in the mill, where he studied designing and rose to be an assistant designer. The millowner had been an ace in World War I, and the patient admired him very much.

He stated that he had several friends but that he was quieter in his social life before entry into the Army. Since graduating from flying school, however, he had become more sociable and enjoyed parties more. He admitted excessive drinking on rare occasions for the previous 5 years, however. His psychosexual development was essentially normal. He was unhappy and anxious to talk about his problems and was obviously somewhat surprised and shocked that he could not force himself to return to combat.

His attitude toward the psychiatrist showed ambivalence. He depended upon him for help and leaned upon him; at the same time, he suspiciously and aggressively repelled what he considered any attempt to investigate his private affairs, demonstrating at times a poorly controlled resentment. In speaking of his mother, he appeared to reject her but, at the same time, stated that he wanted her to "be proud of him."

He was given narcosynthesis twice in an attempt to discharge dammed up affects related to the traumatic experiences. Under the influence of

Pentothal Sodium, he related, but did not relive, the experiences. He did not show much emotion during the narration. Some catharsis and desensitization were accomplished, but it was evident that much more psychotherapy was necessary. It was impossible to discover other traumatic experiences in the past which might have been responsible for his anxiety.

He stated that he was aware that an attempt was being made to return him to combat, but that he resented this and was determined not to go back. At the same time, he expressed regret at being unable to return to combat with his friends and earn more decorations.

The first interviews were short and were devoted largely to listening to his relation of the crash and his reaction to it. As occupational therapy, he was encouraged to assist in the design and construction of several medical and lifesaving devices, to which he immediately assented. Enough progress was made so that it was believed that he could be rehabilitated without hospital treatment. His work was excellent, but he became discouraged easily, requiring periodic praise and encouragement.

A diagnosis was made of a subacute anxiety state with depressive features superimposed on a character neurosis.

The patient was given psychotherapy for 3 months, during which time his occupational therapy consisted of assisting in the design and fabrication of lifesaving devices for aircrew personnel, an activity in which he proved skillful. His anxiety gradually diminished and he finally spontaneously requested reassignment to his squadron, where he finished his combat tour with distinction.

Psychotherapy with or without narcosynthesis was on occasion not helpful in returning individuals to their organizations for duty. The two cases which follow represent therapeutic failures from the military point of view, although some amelioration of symptoms was obtained from therapy.

A copilot was sent down from his organization because of a severe anxiety reaction consequent to being shot down into the water. This occurred on his second mission over a heavily defended base far from his home base. His plane was under attack for about 2 hours. It was hit several times and the bombardier was wounded. Shortly after leaving the target, the upper turret gunner reported a Zero making a pass on the tail. He saw the tracers of the tail gunner entering the Zero. Then, the fighter crashed into the tail of the bomber, carrying away the tail turret with the gunner and knocking the bomber out of control. The plane fell 7,000 feet before the combined efforts of the pilot and copilot were able to pull it out of the dive. Being out of formation, the plane was immediately attacked by several Japanese fighters and was hit again, but not seriously. Several Japanese fighters were shot down by the gunners.

The plane was flown about halfway back to base when a weather front

was seen ahead. The plane did not have enough gas to make the flight home, and the pilot decided to try a water landing. He lost enough altitude to see that the waves were too high for such a landing as the plane was flying with one wing low. Accordingly, he ordered the men to bail out. He told the patient that he (the pilot) would go last. After the crew had left the ship, the patient was ordered to leave. As he dived out the forward bomb bay, he saw the pilot struggling with the controls. As soon as his chute opened, he looked down and saw the ship strike the water, spinning, and exploded without the pilot's being able to leave, all within a few seconds.

He landed in the water. The other planes dropped rafts, which he could not locate. Finally, two gunners in a raft came over to him and helped him into the raft. The night was spent in the raft in a heavy sea. The next day, a rescue plane appeared and tried to land, but crashed, the crew escaping in rubber boats. A second rescue plane then appeared and landed safely, picking up the bomber survivors and the crew of the crashed seaplane. He was then flown to a Navy base, where he was given food, but he lay awake all night, being unable to sleep. He slept better the next night, but dreamed of the combat. He was flown to his base the following day, experiencing much anxiety over the flight. On the day following his arrival at his base, a plane loaded with bombs, taking off for a raid on the Japanese base of Truk, crashed on the runway, and the bombs exploded with a great blast, killing the crew and two tentmates. He then became very restless and anxious, and commenced to have vivid dreams of his experience, from which he would awake terrified. During his dreams, he saw his dead comrades and talked with them and, at times, awoke screaming.

When first seen, he was depressed, anxious, and tense, with definite decrease in psychomotor activity. He complained of insomnia, restlessness, anorexia, and battle dreams. There was a moderate startle reaction.

He had been raised on a farm, the second eldest of four children, and the only boy. His mother was a strong personality, while his father was easygoing. He believed that he was his mother's favorite, "probably because I was the only boy"; he had always been very close to his mother, and had depended upon her in many ways. His mother took a close interest in his affairs and had chosen girl friends for him.

While in his first year in agricultural school, it had been his mother's idea for him to volunteer as a cadet, although he was not enthusiastic about it. He never liked flying and really never wanted very much to fly, but his mother had urged him to continue, saying that this was the easiest way to get a commission. He at times resented his mother's domination of his life but he was unable to avoid it, and had found it easier to accept her assistance. He had managed to finish flying school, but not without difficulty. He had never wished to be a first pilot because "I knew that I could never stand the responsibility." His pilot was a strong personality,

who did most of the flying. The patient made an occasional landing at the insistence of the pilot, but he preferred not to.

When he learned that the crew was to fly overseas for combat duty, he thought of asking the squadron commander for a transfer as an instructor. He decided against this as he feared that it would fail and then he would be looked down upon by his crew.

He was given intravenous Pentothal Sodium and informed that he was starting out on a Truk raid with his old crew. He immediately exhibited anxiety, which became more intense as the mission progressed. As the plane came under enemy attack, his emotions became extreme. He wept, rolled about the cot, covered his eyes with his hands to shut out the sight of the Zeros and flak, and babbled incoherently. On learning that the ship must be abandoned, he appeared to be in a panic which was intensified when he saw the burning ship. He became slightly calmer when he realized that he was not going to fall into the burning wreckage of the ship. While in the water, he was in terror lest he be abandoned to die in the ocean, and he wept continuously. Weeping was intensified when he described his rescue.

A second narcosynthesis permitted some discharge of affect associated with the bomber crash and a leg fracture a few years before, with a subsidence of his acute anxiety state. His character neurosis with strong dependent needs had been intensified by his traumatic experience and his weak ego structure was overwhelmed by mobilized anxiety. It was believed that, while a return to limited flying duty might have eventually become possible in this case, he would always have represented a potential danger to himself and to others as a pilot because of his unresolved neurosis, with the resulting indecisiveness, passivity, and poor ego functioning. It was judged impossible to return him to flying duty and he was sent to ground duty in an intermediate zone.

Another therapeutic failure was that of a bombardier, aged 20, from a heavy bombardment squadron. He was an obese, childlike appearing individual with an ingratiating, fawning manner. He was constantly apologizing for himself or his actions in various ways. He had been sent for therapy because, after five missions none of which were unusual and were considered by his squadron commander to be "milk runs," meaning uncomplicated missions in which little interception or antiaircraft fire had been encountered, he had become anxious, unable to sleep and had informed his pilot, squadron commander, and flight surgeon that he could not force himself into the airplane for further missions.

An impression of marked personality immaturity was gained from a preliminary interview. He was shamefaced about his anxiety and anxious about his loss of standing with his mates. He complained of anxiety dreams, and there was a moderate startle reaction.

He was the oldest of three children, the younger two being sisters, separated from him by a few years. He had been raised in a large eastern

city and was the product of a marriage of parents of different ethnic origins and different religions. This had led to a feeling of his being different. The family had no further contacts with the minority group from which the father came, yet the patient was frequently taunted about this by his companions. He had always felt inferior. His scholastic record was barely average; he had been unable to allow himself to excel or indeed to succeed in any endeavors.

He was always afraid of his father, who was subject to violent outbursts of temper. He believed that his younger sisters were preferred to him. His parents reacted in violent disapproval to episodes of a minor delinquent nature, and he felt that he could do nothing right at home.

He sought bombardier training because it was the easiest way to obtain a commission, since he really had little interest in flying and had hoped indeed to be able to avoid military service, although he recognized that this would be impossible if he were to maintain any sort of standing with his associates. He had had few friends and it seemed clear that his object relationships were poor.

His usual reaction to situations of tension had been with panic. He was unable to pass examinations in school without severe anxiety manifested by vomiting, crying, and severe headaches. He was unable to participate in sports because of his strong feeling that he would fail in competition with others, and he felt that he was a coward. He usually played with smaller children and, even in high school, tended to associate with younger boys.

A diagnosis of a severe anxiety state in a hysterical character with poor ego strength was made. After a few weeks, it was clear that further psychotherapy would be of no avail. The patient was hospitalized after 3 weeks and evacuated to the continental United States. This patient represented an error in the selection process, as he needed extensive therapy.

It was important to keep in mind that references for consultation did not necessarily signify the presence of incapacitating psychopathology. At rare intervals, officers in exercising command function would refer subordinates whom they considered refractory for one reason or another. Great care had to be exercised that an error not be made.

An illustrative case is the following: A first lieutenant pilot was seen at the request of his squadron commander, the request being submitted through the flight surgeon of the squadron. The squadron commander, a major, had complained to the flight surgeon that this pilot was insubordinate, noisy, quarrelsome, and that his conduct was detrimental to the discipline of his organization. However, the flight surgeon said the officer was a good, steady first pilot, even though given to mischievous activities, and it was hinted that his alcoholic consumption was excessive. The flight surgeon appeared rather embarrassed about the reference in conversation, and gave the distinct impression that he would not have made the reference

had he not been ordered to do so. The patient was somewhat indignant at having to talk to the psychiatric consultant. He was frank, however, and gave the impression of a generally stable personality with rather strongly marked character traits of stubbornness and argumentativeness, set off with a strong tendency to involve himself in situations which put him in a bad light.

He openly accused his squadron commander of cowardice. The trouble had been precipitated, according to him—and this was later corroborated by the flight surgeon—when he marched into his squadron commander's tent with the following statement: "Major, how is it that whenever there is an easy mission, you lead it; while whenever there are hard missions, I always lead the squadron? However you are a major and I am a first lieutenant. I suggest that we exchange ranks so that I can get the pay for doing the work." This bluntness enraged the squadron commander and led to the referral.

The patient was returned to his organization with the recommendation that he be transferred to another organization as a combat pilot. This eventually was done after a period which he spent waiting for reassignment, presumably as a punishment for his disciplinary infractions. He was then reassigned to a combat squadron where he finished his combat tour honorably.[6]

In the early part of the tour of duty, occasional exhausted individuals were encountered. These men usually struggled to complete their missions and go home honorably. If they were fortunate, they were sent home before committing a disastrous mistake in flying. An illustrative case is the following: A first lieutenant pilot, 25 years old, was seen on his fourth trip to New Zealand for rest and recreation. He was assigned to a transport squadron flying equipment and troops between the islands of the Solomon chain, living in uncomfortable billets in hot tropical islands with no recreational facilities. The planes were usually overloaded, and long overwater flights unescorted and at times subject to enemy attacks had to be flown. His record was honorable. However, he had had malaria and dengue fever, following which he had returned to flying, this having led to his falling behind his friends in number of missions flown.

He remarked at the time of examination that recently his sleep had been poor although he did not complain of this. On questioning, it was learned that anxiety dreams had recently been annoying him. He did not wish to give the impression however that he wanted to be grounded; in fact, he was hesitant in discussing symptoms since he did not want anything

[6] While on a consultant trip to Germany 3 years after the war, I encountered this pilot at Tempelhof Airdrome in Berlin where he was engaged in flying the airlift. He was still a first lieutenant and spoke of himself as a "permanent first lieutenant with a big mouth." He was still mischievous and still quarreling with commanding officers who represented his intolerant, somewhat tyrannical father. In 1948, he was busily engaged in concocting mischievous schemes to confound the Russians, which were so well devised that they enjoyed considerable success, but brought him into repeated disrepute with his commanding officers.

to interfere with his finishing his missions and returning home. For this reason, he objected to going on leave although his flight surgeon had strongly recommended this because of the recognition of his fatigue, the patient preferring to remain in the forward area to complete his missions. All of his original companions either had been killed or had been returned to the continental United States after completing their required number of missions, and he was the only survivor of his original organization in the theater.

He was the youngest of a large family of a manufacturer in the Middle West. He had had a good scholastic record, had played athletics, and had enjoyed a good relationship with his parents and his companions. He was engaged to a girl in his hometown. No other significant features in the history were noted. On examination, he was found to be markedly underweight. Apathy, listlessness, and irritability were noted in his interview. He resented being sent on leave and was rather hostile toward his squadron commander and flight surgeon for, as he put it, forcing him to interrupt his tour of duty to waste his time in New Zealand.

Since the theater policy then forbade his being sent home unless he were hospitalized and evacuated as a psychoneurotic, with the social stigma which such a course involved, it was explained to him that there was no alternative but to send him on leave, unless he wished psychotherapy; this he irritably refused as he was afraid it would delay his return home. He returned within a few days, stating that he could not tolerate the attitudes of civilians in the leave areas, that he had no taste for further pleasures there, and that he had to return and complete his mission so that he could get home. He was obviously more depressed and it was believed that he constituted a danger to himself and to his mates in attempting to fly. He was returned to his unit with the strong recommendation that he be grounded but that an exception be made in his case—that he be returned to the continental United States without being required to finish his mission, without being assigned to an administrative post, or without being evacuated home through psychiatric hospitalization. After a slight delay, this was successfully accomplished.

The account which follows illustrates the handling of situations in which there was an endeavor by individuals with stable personalities to use the presence of the psychiatric consultant to get home to their families.

A pilot officer, 27 years of age, had been overseas 7 months and had 20 combat missions. On the fifth combat mission, his plane had been severely damaged and had crashlanded in the water before reaching his base, with the loss of two crewmembers. He was not seriously injured in the crash and, despite a temporary period of acute anxiety, was again flying combat in a few weeks. He was an excellent pilot and flight leader, respected by his crew and squadron mates. He was tall and of commanding presence.

His temperament was steady; he had never been known to exhibit evidence of marked psychic disturbance or symptoms, even at the time of his crash or after severe combat. He had been an enlisted man in the Navy for 4 years and had had 1 year of university work before that. However, he had just returned from leave, during which he had married a charming and intelligent girl of a good family, whom he had known for several months.

The second officer was a short, lean, red-haired man, 26 years old, of mercurial temperament and quick perception. He was reserved, however, with individuals with whom he was not acquainted, and formed strong likes and dislikes. He was known as a superb pilot and flight leader, who had 25 missions. About 2 months previously, during an air combat, two of his crewmembers had been wounded and all controls of his plane shot away. He had accomplished the almost unheard of feat of safely landing a heavy bomber without instruments and using the automatic pilot. The plane was so severely damaged that it had to be salvaged. A temporary mild anxiety state ensued, from which he soon recovered, and he returned to flying combat after a short leave. While on leave, this officer had become engaged to a charming war widow with a young child; she had broken the engagement twice before because she was reluctant to take the chance of losing another husband.

The two young men came for an interview with the neuropsychiatrist, convinced that he would ground them. They resented having to fly in combat because others were freed from this responsibility and they were afraid of being killed. After a survey of the situation with an evaluation, it seemed clear that the presence of the psychiatric consultant, whom they knew personally and who had flown missions with them, furnished a convenient possibility of a return to the wife or fiancee. However, it was discovered that the squadron commander, a strong and calm leader affectionately known as "Pop," and the trusted squadron flight surgeon had just departed on rotation to the United States. Thus, attitudes toward these father figures were now displaced to the consultant, as a father figure from whom they wished protection.

It was pointed out that, by following the course they had set, they would sacrifice not only promotion and decorations but also the respect of their friends and the chance to go home with them. The number of men from the squadron who had returned to the States on rotation and were then instructors in the United States was mentioned, and the success in which the squadron and group had participated was brought out. The fact that various other officers had felt as they did, yet returned to combat flying, was mentioned during the conversation to generalize their problems. As much as possible, it was endeavored to make the men express these ideas, although it was necessary for the flight surgeon to express certain of them. The neuropsychiatrist touched on the psychology of fear and in-

formed the men that he considered it their duty to return to combat flying, and that he did not intend to stand by and see them ruin their careers.

Thus, with the use of ventilation, suggestion, authoritative firmness, and guidance, the men were persuaded to make the first strike against the new target. This strike was found to be much less difficult than had been anticipated and no losses or casualties were suffered, although determined interception was met. Both pilots continued in combat and made distinguished records.

The general principles for treating acute anxiety states in traumatized individuals without medical or surgical conditions, occurring in the combat zone, were as follows: The treatment was found to be best carried out in the forward area, but in a location free from bombing if possible; transportation long distances to a rear area was usually not advisable. Food, if desired, and sleep, usually with the aid of a barbiturate, were given soon after arrival at a base or place of treatment. Medical indications were met. Upon awakening after the sleep, interviews to review the traumatic experience in detail were carried out. If this proved difficult or impossible, then narcosynthesis using Pentothal Sodium was given, and repeated once, twice, or even thrice until one could be relatively certain that the traumatic experience abreacted was the important one. If, after two or three narcosyntheses and additional psychotherapy, no improvement took place in the acute anxiety, the patient was usually evacuated and hospitalized.

Another function of the psychiatrist was taking responsibility for relieving organizations of psychopathic characters, who at times managed to thoroughly upset the morale of the squadron or the organization to whom they were assigned, particularly in situations in which the commanding officer was weak and the intelligence of the individual with the psychopathic disorder was high.

An illustrative case is the following: The consultant was asked to visit a Signal Corps organization in an isolated jungle location. Here in rather damp, uncomfortable jungle was encountered the camp. The physician of the unit explained that the patient to be seen had thoroughly disrupted the organization without anyone being able to do anything about it. The patient had been assigned to the organization in the States and, rather rapidly and by subtle means, had come to dominate and set the tone for the entire group. He had succeeded in gathering to himself numerous privileges denied to others. For example, he carried about with him a large legal library because he intended to study law, and had bombarded the various commanders with such numerous requests and demands that he be given various privileges that he had not only succeeded in obtaining them but also in obtaining liberty from various duties to which other members of the organization were "condemned." This soon brought upon him the approbrium of his comrades, who, however, feared his vicious tongue. He had

succeeded in bringing disgrace and degradation to several noncommissioned officers and officers of the organization; finally, a short time before, he had reported the commanding officer for drunkenness and obtained his transfer to another organization, following which he became completely intolerable. It was believed that the organization must either get rid of him or disband.

The patient, an undersized, sullen-looking young man, was strongly disinclined to discuss his personal problems. Instead, he querulously enumerated a set of demands, subtly insinuating that, if his demands were not met, he would "get my job" by appealing to The Adjutant General and that he had connections that would guarantee such results.

He was the sixth child of a poor family in a southern mill town. His parents were described as hopelessly enmeshed in poverty, a situation which he did not intend to repeat in his own life. His childhood had been spent in squalor in the midst of ceaseless arguments, often related to the intoxication of his father and to his mother's martyred air. He had to fight his entire family to obtain any privileges. Obviously, he had repeated the same pattern in the military service. His intelligence was high. Amazingly, although he was a private, he had been able to arrive subtly at a position in which he, in effect, commanded the entire organization. He invited the consultant to his tent, which was roomier and better furnished than that of any of his associates, including the officers.

A diagnosis of character disorder with paranoid traits was made. Immediate transfer to another organization was suggested because evacuation to the continental United States was discouraged by higher authority if any service whatever could be performed by the individual. Another recommendation was that he be allowed no special privileges in his new organization, and that he be hospitalized without delay if further conflict with his colleagues or his superiors developed.

FORENSIC PSYCHIATRIC PROBLEMS

The military neuropsychiatrist from time to time is called upon to determine whether individuals who committed criminal acts "knew right from wrong" at the time of the crime. In the course of such investigations, a variety of psychiatric conditions are encountered among the prisoners. Some prisoners are mentally defective or borderline cases while all are emotionally disturbed. The psychiatrist again finds himself a prey to conflicting emotions in trying to evaluate situations of this sort. If he sets himself up as the open obstructor of military justice, he will lose what influence he is able to exert with commanders. If, on the other hand, he surrenders his principles and passively gives an opinion which he knows he is expected to give by the commander, then he will lose this officer's respect for another reason, as well as his own respect for himself.

The consultant in neuropsychiatry examined many prisoners to de-

termine whether they had known "right from wrong" during the commission of the crime; some were pathetic in the extreme, while several obviously needed psychiatric hospitalization rather than imprisonment and punishment.

One man seen in the prison stockade illustrates this group. This was a Negro private from an organization composed entirely of Negro soldiers, which was assigned, as was the custom then, to tiresome, boring, and degrading duties, such as guarding airplanes in isolated areas, digging latrines, and manning antiaircraft defenses on islands which were never raided. The prisoner was accused of having committed murder following a dice game in the course of which he became disgruntled. A shambling man of about 25, he claimed he had reached the fifth grade although his lack of proficiency in reading and writing left some doubt about this. He stated that he had committed the murder, that he had justification for this because his own life had been threatened, and that, if he had the experience to live through again, he would do the same thing again.

He informed the consultant that his outfit was filled with desperate men, that the officers were afraid of their men and stayed indoors, that even then bricks and stones were thrown into the officers' tents, and they were openly threatened. These statements were made in a mild tone of voice, obviously to impress the psychiatrist, but without overt hostility.

Born to sharecropper parents, he was the seventh of eight children. His family existed in poverty and he had never known anything but hardship.

He said that it was a matter of indifference to him who won the war because his life would be equally hard no matter who won. He was studying to be a preacher and had been reading the Bible for 5 years. He estimated that he could complete the reading of the entire Bible in 3 more years, after which he expected automatically to become a preacher and to begin preaching to his people. He stated that, since the air, earth, and sea of Guadalcanal were full of sin because so many people had been killed there, almost anything could happen and did in this environment, contrary to that of the United States. He did not believe people should be treated harshly because of what they did although he expected punishment and he had carried out his act in self-defense with full expectation that he would be punished for it.

The initial impression was that of a borderline mental deficient; however, further interview cast doubt on this impression. It was finally decided that this patient was not feeble-minded, but presented the picture of pseudostupidity common in Negro troops and especially noted when they deal with white men. He obviously expected no justice and it seemed safer to him to appear ignorant, uninformed, and naive. It was possible to make a diagnosis of borderline psychosis with paranoid trends. He was not overtly psychotic, but obviously had severe emotional conflicts which inter-

fered with his adjustment to his fellows and had finally led to a tragic outburst of aggression. This aggression, unfortunately not uncommon, is rarely carried to the point of homicide in the extremely tense situation of the segregated troops condemned to their monotonous and degrading duties.[7]

OTHER EMOTIONAL AND PERSONALITY FACTORS IN FLYING PERSONNEL

Flying is a dangerous occupation and the flying personnel of the air force were looked up to as men who daily risked their lives. This gave them a position of prominence, and the possession of the flying badge commanded respect. Indeed, deaths from crashes in noncombat operations were not rare while mortality in combat, particularly among certain classes of pilots, was high. The inference was inescapable, and this was borne out by evidence, that the unconscious impulse to suicide in flying personnel was prominent. A careful study of survivors of aircraft accidents, for example, would at times demonstrate that the accident was unconsciously determined and, thus, was really no accident at all. At times, this tendency led to horrifying disasters, as, for example, in the case of the pilots of two heavy bombers. They played tag or follow the leader soon after arrival in the overseas theater, flying at water level into the mouth of a river which emerged from a ravine, and then were unable to climb out of the steep ravine, with a resulting double crash, killing 20 men. Were such accidents rare, they might be explained on the basis of pure chance. However, they were not rare. Many losses in combat were, in fact, due to taking suicidal chances, as any combat pilot knows.

This suicidal tendency was covered up by the defense of denial so that it was easily missed. Another factor contributed to the difficulty in the perception of this tendency; namely, the unconscious belief in immortality, spoken of by Freud [8] as the unconscious belief that death is impossible, that the ego can actually die. In the South Pacific, dangerous missions were always generously volunteered for; a discussion of this fact with the volunteers demonstrated that these men actually believed that while others might die, they could not do so. Thus, by denying the probability of death, they were able to undertake missions in which there was small chance for survival.

The killing of others through aggressive action, while strongly urged during the war, was in actual practice frequently avoided. The exaggerated claims made by some fighter pilots and many aerial gunners in bombing planes during the war—the true number of destroyed enemy planes being actually very small—was the best illustration of this fact. Most men avoided

[7] Such situations are to a large extent avoided by the desegregation policy now in effect in the Armed Forces.

[8] Freud, Sigmund: Beyond the Pleasure Principle. London and Vienna: International Psychoanalytic Press, 1922.

killing, and the killers were distinguished by their rarity. It seems likely that mobilization of the aggressive instinctual drive in war—and instinctual drive which is heavily defended against—is also responsible for the increase in the suicidal tendency so noticeable to any thoughtful observer in an organization such as an air force where opportunities for apparently accidental self-destruction are so frequent.

Thus, character neuroses which are commonly associated with strong self-destructive tendencies occurred frequently in so-called successful or normal flying personnel of the air force. Many examples could be cited.

The activity of combat flying was for many men a form of acting out, as Bond [9] noted. Flying, according to Walsh,[10] is an activity which is rich in unconscious meanings and motivations as one would suspect from the frequency and nature of dreams dealing with airplanes and flying. Greenson [11] and Walsh [12] have remarked on the importance of acting out as a defense against depression. The psychodynamics of the depressive constellation have been described by Freud [13] as consisting essentially of turning the aggressive drive against the ego, or in the terms of Hartmann, Kris, and Loewenstein,[14] against the self, which leads to self-destructive acts, and, in the most severe cases, to actual suicide. This is related to the aggressive instinctual drive, in some neurotic adults associated with a sadistic superego, which attacks an ego structure which may be weak and unable, due to traumata occurring in the pregenital period, to defend itself adequately.[15]

That chronically depressed individuals should appear among combat soldiers is thus to be expected and indeed this symptom was actually frequent. It can be observed during war, by those who are sensitive observers, that there often occurs a mobilization of suicidal or homicidal paranoid tendencies. At times, these are expressed in partial or complete self-destruction. The not infrequent self-wounding which occurs ostensibly in the cleaning of pistols, for example, was harshly treated formerly because it was suspected that the individual wished to avoid further military service, particularly combat duty. As in malingering, deep unconscious conflicts existed in these men and the mobilized aggression could not be turned against other humans but instead was expressed against the self, resulting in destruction or mutilation of some portion of the body or of the individual himself. Recognition of this process would appear to be given, albeit unconsciously, by the less severe treatment of malingerers or those who shot themselves during World War II, as compared with former wars. The same was true

[9] Bond, Douglas D.: The Love and Fear of Flying. New York: International Universities Press, 1952.

[10] Walsh, Maurice N.: Unconscious Factors in Aviation. [Professional paper.]

[11] Greenson, Ralph R.: The Struggle Against Identification. J. Amer. Psychoanal. Ass. 2(2), April 1954.

[12] Walsh, Maurice N.: Dramatic Representation and Aggression. [Professional paper.]

[13] Freud, Sigmund: Mourning and Melancholia. Collected Papers, vol. IV. London: Hogarth Press, 1946.

[14] Hartmann, Heinz, Kris, Ernest, and Loewenstein, Rudoph M.: Notes on the Theory of Aggression. The Psychoanalytic Study of the Child, vol. III–IV. New York: International Universities Press, 1949.

[15] (1) Freud, Sigmund: Group Psychology and the Analysis of the Ego. Standard Edition of the Complete Works of Sigmund Freud. London: Hogarth Press, 1955 (1921). (2) Freud, Sigmund: The Ego and the Id. London: Hogarth Press, 1927.

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of the treatment of men who refused to fly in combat. In contrast to some air forces in World War I, they were not executed, but were usually assigned noncombat duties, as a rule without great stigma.

In all probability, a large number of airplane accidents, as is the case with motorcar accidents, result from undiagnosed and unsuspected depressive episodes and actually represent the acting out of suicidal and homicidal impulses, this being a vicissitude of the aggressive instinctual drive. However, it is rare that this can be accurately determined. The frequent accidents in the air force often gave grounds for suspicion of suicide.

A pilot had expressed resentment, as had many other American officers, at the policy of an Australian officers' club located in a grass hut in a nearby Australian encampment, in excluding all but Australian officers while the United States officers' clubs were not thus exclusive. He had become increasingly morose and withdrawn. This pilot had taken off for a practice flight, shortly after which a fighter plane was seen flying low over the Australian encampment. It was assumed that he was so doing to gain the attention of nurses at a nearby hospital as not infrequently occurred, although this low flying over an encampment was forbidden. However, shortly thereafter, the plane apparently stalled at a low altitude and fell directly into the Australian officers' club in question, where it exploded and burned to death 12 officers in addition to the pilot. It is, of course, impossible to ascertain whether or not, as seems likely, this represented a successful suicidal attempt together with a homicidal protest against fancied discrimination, and whether or not the pilot was in an actual psychotic episode.

However, another case illustrates a more commonly observed type of depression in which the suicidal response was more concealed and more socially acceptable. This concerns a fighter pilot whom the consultant had the opportunity to observe since his early flight training before his entry into the air force. The older of two brothers, he considered himself the least favored by his parents. He was noted to be a quiet, reserved, polite individual, always anxious to please, and rather inclined to defer to others whom he considered superior to himself.

After his entry into the Air Forces, the consultant did not see him again until 18 months later on Guadalcanal in an accidental encounter. The pilot was in a fighter group equipped with airplanes which were too underpowered to cope with enemy fighters and were thus used for strafing and bombing ground positions. He appeared mildly depressed, a common situation among combat personnel, and told of losses the squadron had suffered, of the structural weakness of their airplanes which made them dangerous for driving, and of his difficulty in sleeping. However, he did not wish to leave his squadron or receive any therapy, saying that he was capable of working out his problems for himself.

During the interview, his relationship with his squadron mates clearly was a powerful motivating factor in his life and a source of great satisfaction and fulfillment, filling a need which it seemed he had never been able to satisfy in civilian life—a feeling of complete acceptance by his fellows and of some security in his courage and masculinity. Accordingly, it was decided not to recommend that he be grounded. This young officer was again encountered a year later in New Guinea. He had been shot down and sent to the theater training school for recently arrived air force personnel as an instructor, to give him some relief from combat. He was observed to be very tense and deeply depressed.

It was learned 3 weeks before, in company with his squadron commander with whom he had had some controversy, he was ordered to attack a Japanese antiaircraft position on an island far from his base. The squadron commander had aggressively attacked the battery several times, requesting that he "cover" him during this attack. During his third pass, the squadron commander's plane was hit and crashed in flames on the island. The patient "lost his head" and savagely and recklessly dived repeatedly at the battery to get revenge, after which his own plane was hit and he barely managed to land it in the water offshore. He escaped from the sinking plane with difficulty and remained swimming under fire until he was observed by a passing plane and rescued by a flying boat of the air-sea rescue service and returned to his base.

Here, he was observed to be tense and restless and was relieved from further combat at the suggestion of his flight surgeon. He was not deemed, however, to be sufficiently disturbed to relieve him from flying duty completely and accordingly he was sent to the combat training school as an instructor.

In his first interview, he expressed a wish to return home to see his parents, as something was now missing in his relationship with his squadron mates. He felt that he had let his squadron commander down and that he had in effect been responsible for his death. Accordingly, he no longer expected respect from his squadron mates since he could no longer respect himself. When asked precisely how he had been deficient in his protection of his squadron commander, he was unable to give any definite answer but simply repeated that he somehow felt so.

It was evident that his previously existing hostile feelings toward his squadron commander had made him feel, after his death, that he was his murderer, and aggressive feelings turned toward the self were responsible for his depression. It was recommended that he be relieved from duty as an instructor, which was done, and he was grounded. He was seen in psychotherapeutic interviews and his return to the United States was arranged.

During the waiting period of a few weeks, the Christmas season ensued. The patient and another pilot obtained a fighter airplane, from which the radio and oxygen equipment had been removed that it might be

used as a training plane for local blind flying. From a recently arrived senior officer who did not know local flying conditions, they obtained permission to fly over the Owen-Stanley mountains to Port Moresby, where a hospital with American nurses was stationed. The patient was last seen by members of the accompanying plane, flying up a valley at an altitude above the safe limit for planes without oxygen, the valley being impenetrable because of low-lying clouds. Neither the plane nor its occupants were ever heard from.

Clearly, the complete disregard of all safeguards by this experienced pilot represented a suicide. It was also homicide in that he took along with him one of his mates, resulting in the death of them both.

The military psychiatrist, constantly subjected to a loss of friends and associates and surrounded by death even among his patients during treatment, is necessarily affected by this. Varying degrees of depression were frequent among military physicians, probably related, at least in part, to this factor.

More often, the pilot's depression was not evident to the squadron mates, as in the preceding cases; yet, to the military psychiatrist, it furnished an important explanation for the chain of events leading finally to his death, as was frequent in wartime military flying.

Another case of depression in which the suicidal response was concealed related to a tall, thin, asthenic-appearing 29-year-old pilot, with prematurely grey hair and deliberate manner. He was married and had two young children. Of a quiet, steady temperament, he was respected as an excellent and most conscientious pilot and flight leader. He had been a law student before enlisting in the military service. He had fewer combat missions than his contemporaries because of an illness suffered soon after arrival in the overseas theater. His flight surgeon and squadron commander had for some time been aware of a well-controlled and suppressed anxiety regarding combat, which, however, had never prevented his painstakingly fulfilling his duty. He was introspective, scholarly, and intelligent, and made no secret in conversation with his fellow pilots that he hated flying and had to force himself into the airplane before each strike. He was respected by them for his courage in so doing.

This pilot approached the neuropsychiatrist in the camp area and requested an interview, which was given immediately under a tree. After some casual conversation, he stated that after consideration he had decided not to fly any longer in combat. He said that the new target set for the group was known to be a hard one, from which he considered that few of the pilots could be expected to return and that he felt that they had all done their duty and he intended to tell the group commander so. He missed his wife and children "so much that it hurt" and he felt that he was so far behind in his strikes that he could not hope to finish his combat tour and go home when his friends did. Although he had just returned from

leave, he complained of exhaustion, insomnia, anorexia, and loss of desire to fly. He was moderately depressed.

He voluntarily decided to return to flying after ventilating his feelings, and it was decided that he could safely do so despite his depression, for which he refused therapy. After his tour of duty, he volunteered to remain in the theater and was promoted to captain and, subsequently, to major and squadron commander. He was killed while riding as a command pilot with a new crew, when he took the controls of a burning plane damaged in aerial combat, to give the crew time to bail out. Before he could escape, a wing burned off and the plane crashed in the water, but not before all of the crew except himself bailed out.

His paradoxical decision to remain in combat, despite his fear of flying, his hatred of violence, and his need for his wife and children, may be interpreted in the light of his chronic, subclinical depression. This can be understood as the turning upon the self of his aggression and, thus, of an unconscious guilt which led him to seek death in atonement. He was greatly attached to the group commander who had promoted him; this factor, namely the gift made in gratitude to a father figure, is not to be overlooked. Also, the factor of a strong sense of duty, another evidence of his rigid superego, must be considered important. One can theorize that his ambivalent attitudes toward his father may have been responsible for his seeking death in this manner.

RESEARCH

In the hope of accomplishing some research, the Second Central Medical Establishment (Special) was activated on Guadalcanal in June 1944, and later moved to the Southwest Pacific Area in New Guinea. Because of the difficulty in securing trained personnel, because more time had to be spent in duties other than neuropsychiatric, and because of theater policy and a scarcity of senior medical officers in the air force, little research was actually accomplished. However, a case history evaluation of 63 combat pilots was done by the psychologist, Lt. Jerome W. Kosseff, assigned to the Second Central Medical Establishment, and various lifesaving devices were evaluated and reported on.

SUMMARY

It was the impression of the neuropsychiatrist that, after approximately 18 months, more or less depending upon the stress encountered and upon predisposition, individuals living deprived existences in very hot Tropics tended to become listless, chronically depressed, and more or less irritable. Efficiency and motivation fell off, and flying accidents and combat losses tended to increase. In accordance with the findings of the Australian

Army team investigating adjustment to tropical conditions, the main problem was believed to be psychological rather than physical. In addition, assistance was given in conditioning newly arrived combat personnel at the theater combat training center. Some teaching of squadron flight surgeons in handling anxiety reactions in personnel was possible at times, but never in a well-organized manner because of the great shortage of medical officers in the air force.

In brief, the experience in the Thirteenth Air Force in the Solomons campaign and, later, with the Far East Air Forces in the New Guinea Campaign demonstrated the feasibility and efficacy of therapy by an air force psychiatric consultant familiar with air force problems in the forward area for psychiatric combat casualties.

The presence of strong unconscious tendencies toward self-destruction was demonstrable in air force flying personnel. These tendencies, if not checked by adequate character defenses or, if remobilized by stress, often led to suicidal or uncontrolled homicidal acts, which were considered to constitute acting-out behavior as a defense against a depression.

Part VI

PRISONERS OF WAR

CHAPTER XXVI

American Prisoners of War Held by the Japanese

Colonel Stephen C. Sitter, MC, USA (Ret.), and *Charles J. Katz, M.D.*

The period of captivity for most American prisoners of war held by the Japanese extended from 9 April 1942 until September 1945. Exceptions to this general period of captivity were for a group captured early in the war, which consisted largely of civilians and a few naval medical personnel and military patients in Manila.[1] Although the American troops had abandoned the city in the last days of December 1941, this group was still in Manila when the Japanese forces entered on the night of 2–3 January 1942.

The neuropsychiatric picture of captivity fluctuated qualitatively rather than quantitatively during the period of imprisonment. As the fortunes and misfortunes of captivity rose and fell, the emotional tone of the prisoners of war underwent parallel changes of positive and negative values.

For descriptive purposes, the period of captivity is divided into three phases: The first, from 3 January 1942, when the group of civilians, naval medical personnel, and patients were captured, through January 1943; the second, from February 1943 to 21 September 1944; and the third, from September 1944 until liberation, approximately a year later during August and September 1945. This division by phase is not arbitrary but rather a reflection of both the most dismal and the slightly brighter periods of imprisonment—if brightness could be ascribed to any days or portions thereof by prisoners of war.

Since it is not possible to cover the neuropsychiatric aspects of all military POW (prisoner-of-war) camps, the first phase is a composite view of captivity in several camps and an account of events during the Death March. The second phase is focused on the prison camp at Cabanatuan, Luzon, P.I., which was one of the larger prison camps for the longest period of time. The third and terminal phase is another composite view of several POW camps, and then liberation.

[1] Other personnel, mostly naval, marine, and civilian workers, who were captured early in the Pacific area, were defenders of Wake and Guam.—A. J. G.

FIRST PHASE (JANUARY 1942–JANUARY 1943)

It is appropriate to compare the beginning of captivity for two different groups of prisoners of war—those captured in Manila, whose captivity began with a lighter degree of brutality, and those captured on Bataan (April 1942), who subsequently made the infamous Death March.

Captives From Manila

When the Japanese entered Manila on the night of 2–3 January 1942, apprehension and fear were rife as to what would happen to captured Allied personnel. The Japanese ravaging of Nanking was a tale too well remembered by those left behind in Manila. Despite the ominous speculation of the possible fate at the hands of the Japanese captors, the naval medical personnel, in charge of the military sick and wounded who were housed in the Santa Scholastica College, carried on a regular routine in nearly as normal a manner as possible.

On the night of 2–3 January, the medical officers, the nurses, and the Field Director (Miss Marie Adams), Hospital Service, American Red Cross, sat on the porches of their quarters listening to the sound of the Japanese trucks, jeeps, and troops as they rolled into Manila from the south, along Taft Avenue.[2]

After a few days, anxieties and minor irritations replaced the apprehension and fear of possible atrocities. The irritations were due to the contradictory orders of the Japanese, to confinement, to a sharply curtailed food supply, and to lack of sleep at night because of frequent air raid warnings. Anxieties were due to the arrogant behavior of the Japanese, to the continuing concern of possible molestations of the nurses by Japanese soldiers, and to the severe punishments for any violations of rules laid down by the Japanese. According to Miss Adams, the Japanese also required the medical personnel to send drafts of sick and wounded as work details to Pasay, on the outskirts of Manila, and on some of these work contingents many of the ill Americans had not sufficiently recovered from their illnesses or wounds.

The psychiatric morbidity of this group was not out of proportion to the relatively benign nature of this portion of captivity. Certainly, it was benign by comparison to the early days of captivity of those on Bataan who participated in the Death March.

While there were transient situational depressions, no psychoses occurred among these prisoners during the period from 3 January through

[2] Recorded Interview, Miss Marie Adams, Field Director, Hospital Service, American Red Cross, 7 June 1945, subject: Conditions at Santo Tomas.

May 1942, after which the medical personnel were transferred to Bilibid, which became a POW camp.

On 2 January 1942, a naval line officer jumped to his death from the roof of Scholastica. This was hours before the Japanese entered the city. He was a middle-aged naval line officer, married, with a family in the United States. No psychotic behavior had previously been observed in this officer.[3]

For about 3 months, these Americans were captives of the Japanese locally, and then sent to join other prisoner units. As stated previously, much of the emotional response to captivity was one of situational depressions, anxieties, irritability, and concealed hostility toward the Japanese because of their arrogance and the servility they demanded of their captives. The Japanese systematically confiscated many of the meager foodstores of the Americans, and the resultant sparse diet of the Americans engendered more resentment and hostility. The relationship of the Americans toward each other during this period was rather free from suspiciousness, hostility, and irritability.

Captives From Bataan

The surrender on Bataan came on 9 April 1942. For several months, the troops had been poorly fed. The ration had averaged 2,000 calories per day during January 1942, 1,500 calories during February, and about 1,000 calories during March.[4] Owing to a lack of medicines, malaria and malnutrition with deficiency diseases were at a high incidence rate when capitulation took place. Intestinal diseases in large numbers increased the morbidity rate. Many of the troops had been in combat with little or no relief, so that sheer fatigue and tension were additional factors which contributed to the high morbidity rate and the low morale. Rumors of large U.S. forces being brought to the aid of the beleaguered American and Philippine troops had kept an ebbing morale alive among the soldiers for many weeks.

When the capitulation was effected on 9 April 1942, there were mixed feelings and reactions to this inevitable development. The realization that the United States had not sent help, or, if it had been sent, would now never reach the Americans, caused a general depression. This depressed reaction, combined with the stunned feeling of unbelief, produced an apathy that submerged an intense relief that the fighting under such adverse conditions was over. The apathy of the Americans was soon replaced by intense anxiety of what was to be their fate at the hands of the Japanese. The

[3] Personal communication from Rear Adm. Hjalmar A. Erickson, USNR (Ret.).

[4] Cooper, Wibb E.: Medical Department Activities in the Philippines From 1941 to 6 May 1942, and Including Medical Activities in Japanese Prisoner of War Camps. [Official record.]

troops had seen firsthand or had heard of the numerous atrocities perpetrated by the Japanese on Philippine and American captives.

Numbers of captives who did not succumb to the feelings of apathy and subsequent anxiety thought of ways to escape to the hills or to Manila instead of submitting to captivity. A few escaped and then contributed substantially to subsequent guerrilla activities; others made their way to Corregidor. Of those who did not escape, some remained silent and somewhat withdrawn as if speaking would reveal their fears and feelings toward their forthcoming contact with their Japanese captors; others became hyperactive in speech and activity as if attempting to disguise their anxiety by such behavior.

The Death March

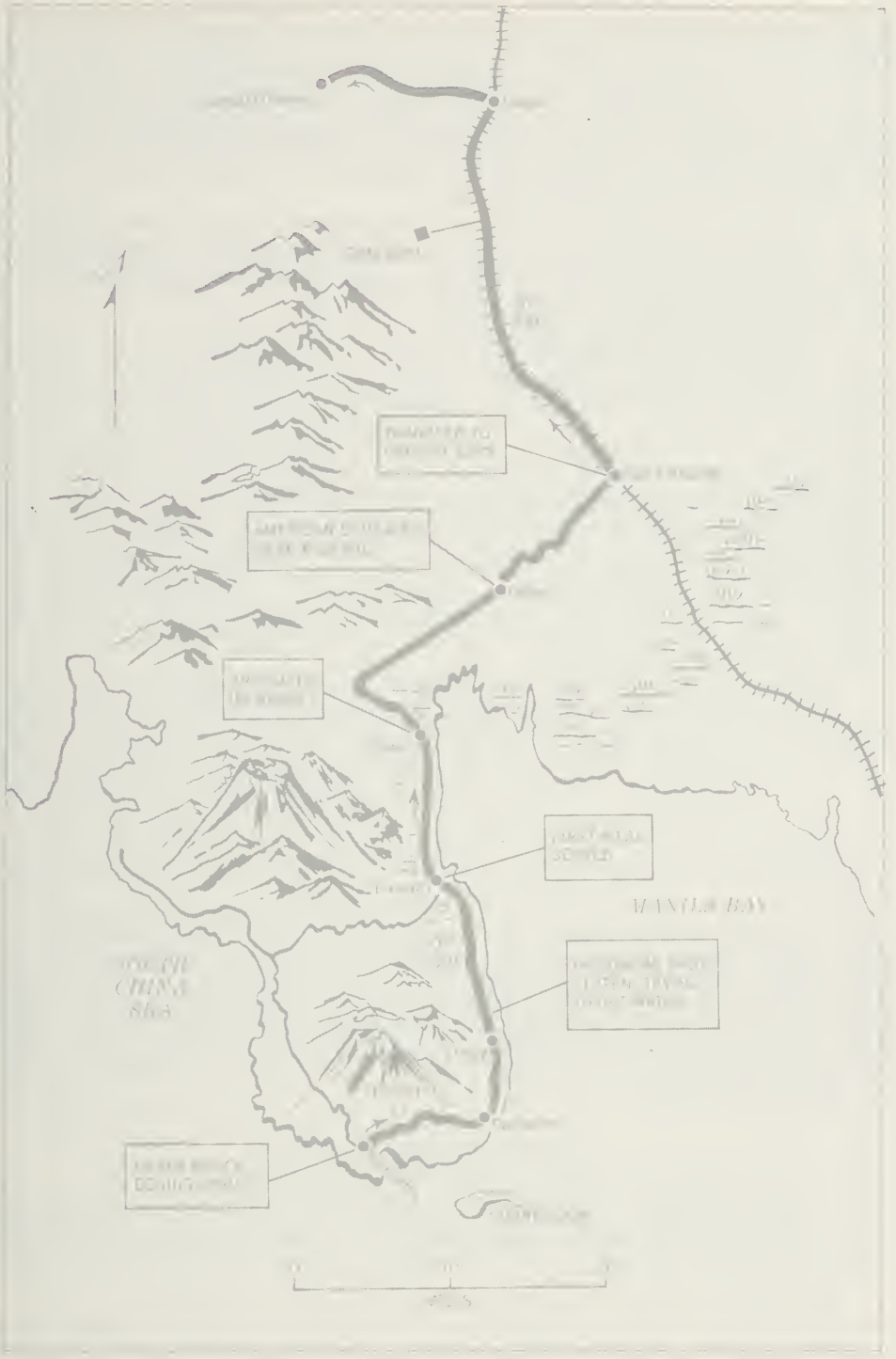
When the Japanese assembled the captured, the initial point of assembly was at Balanga along the south bank of the Pantingan River (map 36). Almost everyone of the Bataan forces was not only malnourished and weak but also had been depleted physically from the effects of malaria and dysentery. In addition to these supposedly well men, literally thousands of the sick from various frontline medical installations and rear hospitals were thrown into the Death March group.

In their first contact with the American and Philippine captives, the Japanese were arrogant, suspicious, and quick to inflict physical violence if the Americans and Filipinos did not respond quickly to the orders given in Japanese. It appears that the Japanese systematically attempted to disorganize and demoralize their captives. An American commanding general was kicked in the face and beaten by a Japanese noncommissioned officer and then spent the first night of his captivity sitting in the jungle of Bataan with his hands so tightly bound behind him that he narrowly escaped losing them from gangrene.[5] All officers of this general's staff spent the night under identical circumstances.

Initially, the prisoners experienced a sense of relief when it seemed that the Japanese were concentrating on POW administration activities instead of visiting atrocities on them and massacring them en masse. Later, when the Japanese guards walked about the prisoners and pulled fountain pens out of their pockets and jerked wristwatches from them, some of the relief was dispelled. When, in a short time, the guards started beating Americans and Filipinos with their fists, clubs, rifle butts, or bayonets, the erstwhile and short-lived feeling of relief gave way to fear, then to hostility and hatred, and finally to a dread apprehensiveness of what would follow.

When the actual march began, no transportation was provided, nor was medical care furnished for sick or wounded among the Americans and Filipinos. The captives had been herded together for several days at the

[5] Cooper, *op. cit.*, p. 101.



MAP 36.—The Death March. [Adapted from "But Not in Shame," by John Toland, by permission of Random House, Inc.]

concentration point at Balanga. Those who died were not buried. The bodies were left to decompose in the hot sun. The Japanese made no provision for sanitary disposal of human waste. After a few days, with literally tens of thousands of men occupying and passing through this area, it became a quagmire of filth and corruption. No attention was given to providing the Americans with food.

The march took about 10 days and terminated at San Fernando, Luzon. Some groups were forced to make the entire march in a single nonstop ordeal, except for an occasional 10- to 15-minute halt. Other groups made overnight stops at Orani and Lubao.[6]

During the entire march, the brutality of the Japanese was constant. Men were forced to march in the hottest hours of the day. If men fell out of the line of march because of weakness, they were bayoneted, shot, or beheaded. Not until Lubao was reached were men allowed to obtain water in normal amounts. Along the march, if a stream was encountered, which was rarely, the Japanese did not permit the prisoners to quench their thirst; instead, they kept them on the road area. On one such occasion, a prisoner whose thirst was intense ran to the stream and, while he was drinking, was beheaded by a Japanese noncommissioned officer.[7] During the fourth day at Lubao, the second stop of the march, one small cupful of cooked rice was given to the prisoners.

The emotional reactions of this group were perhaps quite mixed. Undoubtedly, there was a quite common denominator of hatred toward the Japanese because of their senseless brutality. Yet, it can be assumed that, after witnessing this constant, wanton brutality, many captives were strongly determined to keep walking to avoid suffering the brutality inflicted on those fallen out of the march previously. Hope that food, water, or transportation was awaiting them at the next stop bolstered that determination for a time. If this march had occurred after 6 months of captivity, the prisoners might have had a more pronounced apathy toward their fate, and many more might have succumbed to hopelessness and despair. Many more would have fallen by the wayside and, subsequently, would have been bayoneted, shot, or beaten to death. When the group finally reached Camp O'Donnell, it was said that more than 14,000 men had lost their lives on the Death March.[8]

Prisoner-of-War Camps

Camp O'Donnell.—At Camp O'Donnell, the buildings and equipment were those of a training camp that was in the process of being constructed

[6] Cooper, *op. cit.*, p. 102.

[7] Stewart, Sidney: Give Us This Day. New York: W. W. Norton & Co., Inc., 1956, p. 76.

[8] (1) Stewart, *op. cit.*, p. 81. (2) The number of men who died on the Death March is little better than an estimate. According to Falk (Falk, Stanley L.: Bataan: The March of Death. New York: W. W. Norton & Co., Inc., 1962, p. 198), in a later publication, the death toll was between 5,000 and 10,000 Filipinos and a maximum of 650 Americans.—A. J. G.

when the war began. Many of the buildings had unfinished roofs, water pipes were unconnected, plumbing fixtures were nonexistent, and septic tanks were only partially constructed and not in operation.

Into this camp came the entire army from Bataan, approximately 10,000 to 12,000 Americans and 50,000 Filipinos. The camp was divided into an American and a Philippine section, with no contact between the sections.[9]

Many of the prisoners were apathetic. This was probably attributable to somatopsychic origins because of the very high disease morbidity rate in the camp. Almost everyone suffered from a deficiency disease; for example, nutritional edema and pellagra. Malaria and dysentery killed about 25 to 30 Americans and several hundred Filipinos daily. The total mortality for Americans in the less than 2 months of the camp's existence was estimated at 1,500 to 1,600.[10]

Tools were very scarce, so that it was difficult to bury these large numbers of dead. Dysentery victims soiled themselves so frequently that they would discard the few clothes they had and lie naked on the floors of their huts or in the improvised hospital buildings. No water was available for cleansing. There were three water faucets in the camp to supply thousands of men. Water was rationed one container per man. As men walked toward the water faucet, they looked to the ground, shuffling their feet. None of them talked. There were no smiles, no happiness, just the beaten looks of dying men. Out of their blank eyes came a stare of detachment, of receding within themselves, trying desperately not to be a part of all that was around them. Each believed that if he faced the reality of his surroundings, he would die.[11]

Most Americans in this camp were moved to the military prison camp at Cabanatuan on 1 and 2 June 1942. They were transported 100 men to a boxcar.

Cabanatuan.—Cabanatuan was an uncompleted training camp intended for the training of a Philippine Army division when the war began. Barracks were built of bamboo, with sawali walls and cogon grass roofs, but no doors. They were intended to house 40 Filipinos. From 100 to 120 Americans were crowded into each building. Officers' quarters built for four Philippine officers housed from 15 to 19 American officers or as many as 22 enlisted men.[12]

The terrain of the camp was a treeless plain, a portion of which had been a rice paddy. During the rainy season, about one-third of the camp was literally a bog, with the water in places from 2 to 3 feet deep. The original cadre of the camp consisted of 250 officers and men who had previously operated General Hospital No. 2 on Bataan. They arrived at

[9] Cooper, *op. cit.*, p. 106.
[10] *Ibid.*, p. 109.
[11] Stewart, *op. cit.*, p. 83.
[12] Cooper, *op. cit.*, p. 114.

Cabanatuan on 1 June 1942, and on 3 June, they were designated by the Japanese as the unit to operate the hospital area.[13]

During June 1942, the census of the camp rose steadily, reaching about 6,000 by 1 July 1942. All prisoners of war at Camp O'Donnell, except 600 in semimoribund condition, were moved to Cabanatuan during the first 2 weeks of June. The remainder of the prisoners were those captured on Corregidor.[14]

No provisions had been made for the care of the sick. The prisoners, almost without exception, needed food or medicine. The most seriously ill were placed in the hospital area, and there was an average hospital census of about 2,500 men. No medical supplies or equipment were provided by the Japanese until 26 July 1942. At least 3,500 of the prisoners desperately needed quinine, and some 2,000 were suffering from dysentery. All were suffering from malnutrition and avitaminosis. Approximately 5,000 needed medication for disorders of the skin, such as tropical blisters and ulcers. Approximately 3,000 showed a severe degree of edema of the legs. Almost everyone was infested with body lice.[15]

The foregoing description of the locale and conditions at Cabanatuan is intended as an introduction to a discussion of the environmental factors influencing the thinking, feeling, and behavior of the prisoners.

As stated previously, the population of the camp was made up, in the main, of the original cadre of medical personnel formerly at General Hospital No. 2, of most American survivors of the Death March and, subsequently, of Camp O'Donnell, and of captives from Corregidor.

In describing the initial situation at Cabanatuan, Cooper[16] wrote:

> The condition of the men from Camp O'Donnell was appalling and beggars description. These men were the survivors of the Death March and six weeks' maltreatment at Camp O'Donnell. What few clothes they possessed were ragged and filthy. They had not shaved or bathed for weeks. Hundreds of these men were bloated to twice their normal size because of the collection of edema fluid in the lower halves of their bodies and they were utterly fatigued and walked with great effort. They appeared more like men of eighty than boys in their early twenties. Many of them were stark naked. At least one-fourth were without shoes. For the care of this desperately ill group of men nothing was available. The buildings were without lights; not even a candle was provided. A few of these men possessed blankets but the majority were without adequate cover. Some of the men had tied gunny sacks or rice sacks around their bodies to provide a semblance of clothing. Only a limited amount of water was available for drinking purposes. There was none to wash the body or to cleanse mess gear. There was no soap or toilet paper, no brushes, brooms or cleaning rags. Moreover, almost every patient suffered from looseness of the bowels and many of them could not control the movements. Patients were literally steeped in their excretions. Those in the lower tiers lay in puddles of urine and feces and were further contaminated by the same material dripping from the tiers above. Even those who possessed some strength were unable to walk to the latrines. Many would

[13] *Ibid.*, p. 115.
[14] *Ibid.*, p. 114.
[15] *Ibid.*, p. 115.
[16] *Ibid.*, p. 116.

crawl a few yards from the barracks and evacuate their bowels. Consequently, the entire area was covered with feces and urine. The fly population was uncountable. They were of the large green and blue variety, the typical latrine fly. To keep them off the food was practically impossible. The odor from the foul bodies of sick and dying was almost unbearable.

Each day an attempt was made to clear each barracks of the dying. They were removed to "zero" ward, laid on the bare floor entirely naked. These patients usually were profoundly emaciated, in fact, little better than skeletons with a feeble spark of life. Heroic corpsmen and doctors did what they could to alleviate the indescribable conditions. They tied grass onto sticks and attempted to cleanse the floors. They used the same method of cleansing the body. Occasionally, a big puddle of rain-water would provide enough water to wash the floor. At this time, the use of the regular water supply system was strictly forbidden by the Japanese * * *.

Approximately a month after our arrival in the hospital area, we were able to secure a moderate amount of soap and toilet paper and we were given special permission to use the water system for the purpose of cleaning the "zero" ward.

With the various diseases, in some cases multiple diseases, a large percentage of the patients succumbed to a marked apathy in which there was no manifestation whatever that could, in any way, be interpreted as a desire to live.

Efforts to Improve Morale

Although medical officers could do little to improve the physical condition of patients, because of the scarcity or absolute lack of water, soap, and medicines, they nevertheless made a concerted effort to combat the general apathy and depression among the sick. The will to live in this group of some 2,500 sick was at a low ebb, if at all present. The medical personnel, by persuasion, exhortation, and assiduous attention and care, attempted to instill a motivation and a will to live.[17] Sometimes, the patients expressed satisfactions toward this bit of personal psychological and medical attention; at other times, they remained apathetic and silent. Sometimes, the sick person's role as a father and its attendant responsibilities for the future were invoked for the patient. These and other methods of therapy were employed where possible.[18]

[17] The same phenomenon was noted among sick and wounded Americans who were captured during the Korean War and was labeled "give-up-itis" by U.S. medical officers who were prisoners of war. Unfortunately this term was later used by some to indicate the "moral" or "psychological" weakness of American youth. Manifestation of such apathy, however, was not uncommon, for it was observed during the Civil War in neglected sick and wounded prisoners of war.—A. J. G.

[18] Dr. John E. Nardini who, during World War II, was a Commander, Medical Corps, U.S. Navy, served as a medical officer in prison camps in the Philippine Islands and Japan with members of the 30,000 American military prisoners captured by the Japanese Imperial Army with the fall of Bataan and Corregidor in April and May 1942 (see footnote 19, p. 940). Dr. Nardini reviewed this chapter in March 1968 and, from his personal knowledge, furnished the information which follows, as well as that contained in footnotes 21, page 941, and 33, page 946.

"One aid used by myself and other medical officers at Cabanatuan was the use of placebos. For reasons not known, the Japanese rounded up supplies from local Filipino drugstores and brought them into camp. The items available for distribution to the ward medical officers contained essentially such ineffective but innocuous agents as Lydia Pinkham's Vegetable Compound and Dr. Carter's Pink Pills for Pale People. These remedies were dispensed with convincing sincerity to patients so desperately wishing to be helped

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At times, these attempts were successful, but in too high a percentage of patients efforts to instill a will to live failed, especially in such extremely adverse surroundings and with prisoners suffering severe current illness. Nardini,[19] from firsthand experience, reported on survival factors in American prisoners of war of the Japanese. He noted that those who gave up earliest were the younger men, in the 18- to 22-year span, who lacked the maturity, philosophic concepts, fortitude, independence, and buffering effect of at least several years of military experience which they needed to withstand the initial shock. The next most vulnerable group was probably in the 45- to 55-year span, and then the 33 to 45, 55 plus, and 23 to 33 in order, with the 23 to 33 having the most favorable status for survival.

Factors Influencing the High Casualty Rate

The death rate at Cabanatuan during this early period was very high, with approximately 1,500 deaths in the first 3 months.[20] The high death rate produced a negative emotional effect upon the prisoners. Many of those who witnessed the daily burial details, carrying as many as 40 or 50 naked bodies to the cemetery, were visibly depressed. Frequently, there would be a heavy silence among the bystanders for an hour or more after the funeral procession. Not infrequently, men who carried the bodies on the improvised biers were in a few days or a few weeks themselves corpses carried in this manner for burial.

Depression was not universal in the camp. There was much controlled hostility toward the Japanese. Among American groups, the hostility was verbalized but, of course, not in the presence of the Japanese. Not only was the barbaric cruelty of the Japanese a cause of the hostility, but the marked indifference of the Japanese toward the illnesses and severe deprivations of the Americans was also a factor in engendering the hostile feelings of the prisoners. An example of this indifference is the following description of how the Japanese handled a diphtheria outbreak:

On 15 June 1942, two cases of diphtheria were diagnosed. Within 3 months, some 425 patients with diphtheria were hospitalized; of these, 123 died. For the first 2 months, only very limited quantities of antitoxin could be obtained, despite the pleadings of U.S. medical authorities. During the third month of the outbreak, a fairly ample amount became available, and it was surprising to see how many patients in the early stages of the disease recovered when they received as little as 2,000 units of antitoxin. The same Japanese indifference existed where other critical medical items were requested. It was not until 26 July 1942 that a supply of 300,000

that they were truly benefited by the interest, hope, and wishful thinking of the miracle of medicine. I, among others, attempted strong emotional support and, at times, even attempted to provoke weak, apathetic, ill men to anger as it had a sustaining force in the presence of so much distress."

[19] Nardini, J. E.: Survival Factors in American Prisoners of War of the Japanese. Am. J. Psychiat. 109: 241–248, October 1952.

[20] Cooper, *op. cit.*, p. 119.

three-grain tablets of quinine was brought into camp.[21] During the succeeding 30-day period when adequate quinine was available, there were 500 fewer deaths than in the preceding month.[22]

The apathy and the lack of a will to live, the depressions, and the hostilities varied considerably in the camp during the initial period. The prisoners who were not hospitalized certainly were not seriously disabled by these psychological traumata even though suffering from one or more of the common illnesses of the camp. During the first few weeks in camp, little progress was made toward improving the sanitation of the camp, but an active improvement program was carried out in July and August. Drainage ditches were dug, adequate pathways were constructed, and new latrines were dug, although it was difficult to find men strong enough for the various work details.

Factors Influencing Morale

In July or August, the food supply was increased. About two dozen cases of evaporated milk were issued each day for the very ill. The rice ration was increased from 390 to 500 grams per man daily. A bonus of a small loaf of bread was given to each man who was on a work detail. Also, the Japanese permitted Americans to purchase sugar and small amounts of canned goods. A liberal supply of Philippine cigarettes was available for purchase. The issues of food and the opportunity for purchase of supplementals, including cigarettes, raised the morale considerably. In August, the number of deaths was about 240, which was considerably lower than that of June (498) and July (789).[23]

While the morale was generally improved, some individuals were suspicious of their fellow prisoners who fared better by earning more food as members of a work detail or through purchase of items permitted in the camp by the Japanese. Money was beginning to appear in camp through channels operated by Filipinos and Americans permitted to work outside the prison camp.

The suspicion did not appear to originate in paranoid ideation entirely. It probably stemmed from a feeling of envy toward the one who fared better and, subsequently, of introspective wondering, then suspicion about "what angles" the more fortunate one utilized. Although the suspicions were often baseless, they were nevertheless frequently nurtured and assumed the proportions of overt or covert hostility. This psychological situ-

[21] To my personal knowledge, this quinine resided in the camp for at least 2 weeks before being issued, despite many pleas of the American medical officers. This quinine was of great help since most men had malaria. It is my understanding that the Japanese insisted on the sick receiving less food than the well and working. This was presumably a device employed to motivate men not to be sick even through they were dying with dysentery, malaria, malnutrition, beriberi, pellagra, scurvy, etc. (Nardini's comment, 8 Mar. 1968).

[22] Cooper, *op. cit.*, pp. 117–118.

[23] Cooper, *op. cit.*, p. 119.

ation was augmented when the more fortunate prisoner did not share his meager gains with his less fortunate acquaintance, erstwhile friend, or barracksmate.

Suspicion and hostility were increased by other events. Some of the smuggled occupation currency was given to the chaplains as a sort of welfare fund for the sick hospital and dispensary patients. The chaplains, in turn, allocated the moneys to the physicians for purchases of supplemental food items for those most ill. As can be readily assumed, those who were not allocated these welfare purchases frequently were suspicious of those who did receive them. The recipients of the extra purchases were often regarded as individuals magnifying their illnesses or simulating new diseases. Again, the cycle prevailed; namely, suspicion, resentment, and hostility.

Another reason for the appearance of these psychological products was the feeling among a number of the enlisted men that the officers were using their rank to gain advantages in the purchase of items that the Japanese permitted in camp. Undoubtedly, there were instances in which the officers did have and did take advantage of this extra source of food and cigarettes.

During the month of July 1942, the Japanese permitted relaxation in the forms of programs of entertainment and music. This change also helped raise morale somewhat. The Japanese also furnished English-language newspapers from Japan which, however, proclaimed repeated Japanese victories over the American and Allied Forces. Their senseless cruelties and seeming indifference to the welfare of their captives appeared to be an attempt at subjugation rather than at "brainwashing." [24] Whether or not intended or officially condoned, the Japanese guards frequently passed rumors that the Americans would be exchanged in the not too distant future. If these rumors were officially sponsored, it would seem that they were intended to build up hopes and expect a subsequent letdown in morale in the captives when the rumors did not materialize.

With the meager increase in diet and availability of supplemental foods and cigarettes, some of the apathy and passivity of the prisoners decreased. There appeared to be a more palpable optimism toward the future in many of the nonhospitalized prisoners.

Physical Disease Associated With Emotional Reactions

Some of the seriously ill remained apathetic, passive, and too frequently, indifferent about whether they lived or died; some, however, were quite apprehensive and anxious about living. For example, when more adequate supplies of quinine were furnished by the Japanese in late July, such medication was liberally issued to malaria patients. Under these circumstances, it was not infrequent to find a hoard of several dozen quinine

[24] No attempts were made by the Japanese at "brainwashing" which resembled those methods practiced by the North Korean and Chinese Communists during the Korean War.—C. J. K.

tablets among the personal effects of a deceased malarial patient. Apparently, such a patient had believed that conditions might get worse and was saving his tablets for a "rainy" day.

Deaths were still occurring in large numbers, close to 300 per month at the end of October 1942,[25] and were attributable to starvation, dysentery, and deficiency diseases. Sanitation was still deplorable—latrines filled with water as soon as they were dug and the walls of the pits would cave in, leaving large openings for the free ingress and egress of flies. Maggots were crawling over the entire area and could be scooped from these latrine pits in bucketsful. The continued death rate, poor sanitation, and still very inadequate diet contributed to the persistent apathy, passivity, and lack of will to live, especially for the hospitalized.

Among the nonhospitalized, there was much peripheral neuropathy due to beriberi. This syndrome was described by the individuals afflicted as the "hot foot and hand disease." Subjectively, it was characterized by edema of the ankles, which preceded all other symptoms by about 3 to 4 months. Then appeared an increase in sweating of the entire surface of the hands and feet, and the entire surface of the arms and legs depending on the severity, together with an intense redness of the fingertips, palms of the hands, and toes. This was accompanied by an extreme tenderness of the soles of the feet and palms of the hands. The pain was, at times, so severe the patients could not bear to touch the toes or to walk upon the feet or to grasp anything with their hands.

Observation and study of these individuals revealed the following:

1. Loss of morale, plus indifference of body cleanliness.
2. A desire to soak the feet in an attempt to secure relief, resulting in extreme maceration of the skin.
3. Impairment of intellectual function; variable degrees were noted.
4. Affectively, the patients were irritable and, at times, uncooperative and negativistic.[26]

The patients described in the preceding paragraph were numerous, and the syndrome affected both the hospitalized and nonhospitalized groups. The irritability that was manifested by this type of patient is probably ascribable to the severe and almost constant pain suffered rather than to a situational prison reaction. The terrain and paths in the camp had many small stones and pebbles. Most of the prisoners were without shoes and were forced to walk barefoot or on sandals constructed from waste lumber. Contact with this soil was a painful procedure, especially without shoes, and such pain probably fostered the irritability. The negativistic attitude was frequently an attempt by the patient to refrain from any contact with anyone or anything, as only a mild stimulus was required to precipitate

[25] Cooper, *op. cit.*, pp. 119–120.

[26] Katz, C. J.: Neuropathologic Manifestations Found in a Japanese Prison Camp. J. Nerv. & Ment. Dis. 103: 456–465, May 1946.

pain in one or more of the extremities. Sheer fatigue may also have been a reason for the apparent negativism as many of these victims soaked their feet in water for hours during the night to obtain relief, if water was available. It is little wonder then that, in the daylight hours, they could muster little energy to socialize or demonstrate positive attitudes toward their fellow prisoners.

Physical Disease Associated With Psychosis

Among the frank psychoses seen early in Cabanatuan were those associated with the cerebral form of malaria. These ranged from mild delirious reactions to schizophrenic-like states. The symptoms of this disorder responded favorably to quinine in any form—almost promptly if administered intravenously or intramuscularly, but less rapidly if taken orally. The results were often dramatic. An individual in a coma or a maniacal state as the result of so-called cerebral malaria, after receiving quinine intravenously for 3 to 4 days, would once again become quiet, cooperative, oriented, in good contact with his environment, although without knowledge of what had occurred during the period of his acute illness.[27]

Other psychoses were those associated with pellagra. This psychosis was principally manifested as an effective disorder, with depressed type in the majority. Most of those suffering from severe pellagra did not recover.[28] Thus, according to Jacobs, undoubtedly men of this group who appeared as functional depressions were in reality a combination of a terminal moribund state and depression. There were no psychoses in the group observed by Jacobs,[29] but he did note that these patients became very apprehensive as to the possibility of sterility, impotence, and even the loss of the scrotum.

Psychoses throughout the existence of this prison camp were comparatively few. The organic psychoses have been described and their combined numbers probably did not exceed a hundred cases. The incidence of functional psychoses has been estimated approximately as 1 per 1,000 per annum.[30]

Much speculation can be indulged in regarding the relatively low incidence of major psychiatric disorders (psychoses). Undoubtedly, among

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[27] See footnote 26, p. 943.

[28] A deficiency disease resembling pellagra but differing from it in several of its manifestations began in August 1942. This syndrome designated the oculo-oro-genital syndrome by Jacobs (*see* Jacobs, E. C.: Oculo-Oro-Genital Syndrome; A Deficiency Disease. Ann. Int. Med. 35: 1049–1054, November 1951) affected an estimated 75 percent of the prisoners at Cabanatuan. Its main features were a scrotal dermatitis that progressed from pruritus to erythema, then exfoliation and, in some severe cases, to ulceration. The oral symptoms were an angular stomatitis and glossitis, the latter symptom sometimes progressing to ulceration. The ocular symptoms were conjunctivitis, keratitis, and some degree of amblyopia and optic atrophy.—C. J. K.

[29] The lack of severe mental changes and the usual pigmented dermatitis of the exposed areas seen in pellagra were not found in these cases.—C. J. K.

[30] This rate is less than that observed for garrison troops in peacetime and compares with rates of 2 to 3 per 1,000 during World War II, in overseas theaters.—A. J. G.

the many who died of malaria, dysentery, starvation, or the other diseases of the camp were potential psychotics or undiscovered and undiagnosed psychotics. This is not surprising in view of the very high mortality rate of the Death March, at Camp O'Donnell, and during the early months of Cabanatuan's existence.

Supports for Survival

Among the prisoners who survived the early high mortality rate, one found that adjustments to captivity were made without normal ego supports and on a compromise basis. The prison life had reduced living to its barest essentials—eating and staying alive through food and with what little medical attention and supplies were available. News from home through letters, newspapers, or radio was not available. Thus, a prisoner's hopes could not be buoyed through news of American or Allied victories. His adjustment could be made only with the very meager interests contained in the contact with his fellow prisoners. Amateur shows were permitted in July or August 1942. Religious services were initially forbidden but were allowed after a few months. Brill,[31] from information obtained from repatriated prisoners after the war, found that "religious belief was not mentioned as a sustaining factor; in fact, no examiner, neuropsychiatric or otherwise, included anything on religion in their reports. It is conceivable that religion played a role in the early days of captivity and that it became less prominent as a more static prison life was established."

In light of the foregoing report, the following observations are offered:

In Cabanatuan, one did see excellent work done by the chaplains. When religious services were forbidden, chaplains of all denominations visited and comforted the sick, and when religious services were permitted, they were quite well attended even though not overwhelmingly so. One must speculate whether some of the repatriated prisoners who disclaimed religion as a support believed that to admit praying would detract from the adequacy of their ego supports.

During this early period of confinement, disease and deprivations of food and other normal necessities were not the only hardships to which the prisoners had to adjust. Physical punishment was meted out by the Japanese with very little provocation. Failure to salute or bow to a low-ranking guard usually brought a blow to the prisoner with the foot, club, or rifle butt. Psychological harassment by the Japanese appeared to be a studied effort at complete subjugation of the prisoners. Food and water were reduced as mass punishment; threatening speeches were made to groups of prisoners; on one occasion, the Americans were forced to witness the execution of several Americans. The Americans were also divided into

[31] Brill, N. Q.: Neuropsychiatric Examination of Military Personnel Recovered From Japanese Prison Camps. Bull. U.S. Army M. Dept. 5: 429–438, April 1946.

"shooting squads" of 10 men each. This formation of such squads was to prevent escapes from camp. If one or more men escaped, the remaining men of his squad were to be executed. The primary purpose of this Japanese order was probably intended to promote suspicion among the members of individual squads. It certainly did not succeed in its objective on any widespread scale.

The foregoing briefly described harassments were met in various manners. A stable personality managed the present situation by drawing on defenses used previously for lesser problems. Such defense mechanisms included the following: Escape through controlled autism, study, and drama; refusal to face reality, as overoptimism (a hazardous defense in this situation), overpessimism (generally more effective); "be friendly and on good terms with the enemy, then he won't hurt you"; repression and suppression of knowledge of the ever-present danger of death with a kind of obsessive conviction that one would make it somehow; and pleasurable fantasies of the enemy's taking a beating elsewhere in battle.[32]

The "underground railroad" contributed much to the positive type of mental hygiene of the camp. Through it came not only occupation currency but also news of the war effort, reports of conditions in Manila, letters from friends or loved ones in Manila, and oftentimes small quantities of badly needed medical supplies. Any good news was quickly but cautiously disseminated among the prisoners. Needless to say, some of the courageous individuals who operated the "underground railroad" were destined to suffer death or torture and imprisonment by the Japanese. The general knowledge that this surreptitious operation existed was of itself a factor that improved morale in the prisoners.[33] It meant to many that even though they were apparently "forgotten" by their own country, there were still many willing to risk their lives for the prisoner's welfare.

Further Improvements

In September 1942, the Japanese began to give the Americans the offal of carabao that were slaughtered for Japanese consumption. Apparently they did not realize the palatability of the liver, the heart, the tongue, the brains, and so forth, of the animal. This was designated by the Japanese as a diet supplement for the sick among the Americans. Not only were the liver and heart used by the Americans, but the gastrointestinal tract, the lungs, the blood, and even the bones were cooked and broken to obtain the marrow. The supply of food thus obtained was small indeed, but it was so desirable that evidences of the secondary gain component of illness quickly

[32] See footnote 19, p. 940.

[33] In the main camp at Cabanatuan, prisoners assigned to a work shop assembled a radio at night and heard San Francisco radio station news KGEI. In the daytime, the radio was dismantled as pieces of equipment. The dissemination of this news was helpful to morale even though most of the news was unfavorable to the United States. (Nardini's comment, Mar. 1968.)

appeared. Men who were ill manifested an aggravation of symptoms with the conscious or unconscious motivation of being placed on the list to receive such supplemental diets. However, some men who desperately needed this meager additional nourishment would not eat it, for esthetic reasons. They readily gave such food to less sensitive individuals who eagerly sought it.

In October 1942, the Japanese began allotting small amounts of carabao meat for all Americans. The amount issued was so small that the meat only appeared as a thin stew at one meal on occasional days, and then the solid meat did not constitute more than a half-dozen cubes which were the approximate length and width of a thumbnail. By American standards, this amount of meat was negligible, yet its appearance enhanced the very thin stratum of positive morale present in the camp.

The slight improvement in morale seemed to be a spark that ignited small fires of a greater zest for living throughout the nonhospitalized population. This was evidenced in many ways. The preponderant air of apathy and mild to moderate depression so much in evidence previously gave way to a noticeable attitude of "maybe I'll make it out of here after all."

Several other changes in camp life not previously mentioned were also contributory toward this effect. The Japanese showed a bit more latitude in permitting camp entertainment, including amateur shows, and recreation.

Form correspondence cards to be sent via the International Red Cross were furnished by the Japanese to all prisoners so that Americans, by placing their own handwritten signatures on the place provided on the card, could inform their relatives or friends at home that they were still alive. The card also provided space for a small message. About the same time, religious services were permitted in the camp.

Commonplace necessities were more plentiful. This included more water for drinking and bathing and more seasoning for the meager and somewhat unpalatable diet. These seasonings were mainly salt, natively raised peppers or black pepper, and a curry powder purchased in the authorized camp commissary. Other stocks in the commissary were available in greater supply, and since a good share of these stores were corned beef, American and Japanese sardines, and Japanese salmon and tunafish, the demand always exceeded the supply. This is understandable when one considers that the issue diet provided so negligible a supply of protein and the food articles just enumerated had such a rich supply of both protein and fat.

During the month of October 1942, the Japanese started sending work details from Cabanatuan both to Japan and to various prison camps in the Philippines. The healthier men were selected for the details as the intention of the Japanese was to provide capable laborers for their own work projects.

Feelings among those sent on the details were mixed. Some of the men felt a sense of relief at leaving the depressing, and starvation- and disease-

ridden Cabanatuan. Despite the previously described slight improvement in conditions at this camp, these men believed that they had a better chance at some other camp. In some instances, such hopes materialized. Others felt quite depressed about leaving Cabanatuan when the situation showed some slight improvement. Also, this same reaction was observed in individuals who were thus separated from a group with whom they had strongly identified during the early gruesome days of camp life. Many of the more optimistic about rumors of possible repatriation were quite despondent because they now believed that a move from Cabanatuan would deprive them of a chance of an early return to the United States.

The vacancies in the camp created by the outgoing labor details and the continued death rate were filled by prisoners from other camps that were closed, so that the population of Cabanatuan remained fairly stable. The new arrivals usually were a stimulant, at least initially, for they brought news of the outside (in instances, previously separated buddies were reunited) and joined and often strengthened established groups.

During November, the Japanese furnished issues of carabao with a slightly increased frequency. Commissary supplies had less protein and fat-yielding articles, such as corned beef, sardines, and other fish, but that authorized source of supply did have small numbers of chicken and duck eggs, and occasionally a few live chickens and ducks. Thus, those who had currency were still able to supplement their everyday diet to a small degree.

The decrease in apathy and depression previously observed among the nonhospitalized prisoners was now also seen, although less often, among those hospitalized. Now the majority in the hospital appeared to have a stronger will to live than during the initial 3 to 4 months of the camp. Certainly, during the latter part of October and November, there were fewer cases of "bamboo disease," described by Katz,[34] as follows:

> * * * characterized by a lack of organic symptomatology—an absence of fever, diarrhea, chills, and so forth. Nothing was evidenced except an indisposition to eat and an overwhelming desire to roll up in a blanket and to be left alone. In 3 or 4 days, when the individual was stripped and prepared for burial, there were found on the dependent parts of the body marks of the bamboo slats on which he had been lying. This disorder might be considered a severe melancholia, during which the individual relinquished his hold on life, since the conflict between the socially mature, culturally sensitive self and the basic tendencies toward survival was so impossible of solution that the only recourse was to withdraw into the depths of a depression.

Hope Brightens

With the improved morale, the relatively healthy prisoners appeared less passive and dependent not only in their interpersonal relationships but

[34] Katz, C. J.: Experiences in a Prison Camp as a Background for Therapy. Ment. Hyg. 34: 90–94, January 1950.

also, as much as providence permitted, in their relationships with the Japanese. These prisoners would discuss possible escape methods among themselves. Usually, these discussions would terminate quickly with the ever-present realization that others would be shot because of the escape. But the very thought and discussion of escape was a departure from the passive, apathetic, dependent-type thinking of the first months of camp. When Japanese propaganda newspapers were given to the prisoners, the war news contained therein was, in most instances, viewed with a high degree of skepticism among the Americans but, of course, not expressed to the Japanese. Humor began to make its frequent appearance in ordinary conversations and in the stage shows produced by the Americans. Nicknames were bestowed on the Japanese guards, unbeknown to them. One guard did discover that he was being referred to as "Donald Duck." He earned this cognomen because of his raucous voice and the manner of flailing his upper extremities as he talked. This guard asked some prisoners about the real identity of Donald Duck. He was informed that the real Donald Duck was a Hollywood celebrity. This information pleased the guard until an old movie was shown in camp and the animated cartoon was a Donald Duck creation. The nickname was quickly abandoned for obvious reasons.

The attitude of the prisoners working for the Japanese was less cowed than previously. Many were helped to tolerate the misery of confinement by finding an effective but disguised way of striking back at their captors. These measures included surreptitious acquiring of news; bribing of Japanese guards; utilizing knowledge of the natural Japanese schizoid-paranoid temperament [35] by playing one against the other; smuggling news, letters, food, Japanese dictionaries, and medicines; and in some instances, successful contamination of captors' food.[36]

The dry season, beginning in November, removed some of the depressed reaction that had been present earlier in camp. Heavy rains had dominated the climate from early June until mid-November. Climatic conditions such as these certainly contributed to extremely poor living conditions, and secondarily, produced much frustration and depression. Sanitation improved with the beginning of the dry season, and in early 1943, prisoner Engineer Corps personnel devised and constructed a series of septic tank-type latrines which provided a solution for the greater sanitary problem.[37]

The death rate was still high, remaining at the level of 300 per month. The beginning of the dry season lowered the number of deaths from pneumonia complicating starvation, dysentery, and deficiency diseases.

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[35] This characterization of the Japanese temperament is very, very questionable. It should be recognized, however, that the authors, as prisoners of war, were influenced by their experience.—A. J. G.

[36] See footnote 19, p. 940.

[37] Cooper, *op. cit.*, p. 120.

Socialization and Group Identification

Individual prisoners now began to resume an awareness of their own identities which had earlier been submerged in the dark morass of vanquished, tortured, sick, and depressed forms of humanity which had been herded together by a cruel, savage captor utterly oblivious to the intense suffering about him. The prisoner now made known his identity as a Texan, a Californian, or a former member of a military unit that had distinguished itself. These same prisoners now spoke of the future reunion with loved ones or friends, and of again enjoying such commonplace comforts as good food, drinks, automobiles, radio, and a well-furnished home with its beds, baths, and sanitary furnishings, and so forth.[38] Sex again began to appear in conversations when men sat around in the evening. Small discussion groups gathered informally, and the subjects ranged from the philosophical, to the probable course of the war, or to merely "batting the breeze."

Group identification became stronger. Three or four or a half-dozen prisoners would form what was known as a "quan" group. The Tagalog word "quan" described nothing in particular. Its equivalent in the American vernacular is the "what do you call it." Members of the quan group ate their meals together and, if able to purchase any foods in the authorized commissary, shared these purchases for the group's table. Food was not consumed in a messhall but was obtained at the kitchen and carried to the prisoners' barracks where most groups had built small wooden tables from discarded lumber.

The positive value of such group identification was very real. It placed emphasis on such common needs as food and survival, passive resistance to the enemy, and the maintenance of a goal (living for liberation). With the strong goal of mutual survival, members of a quan group became interested in each other. Quarreling was at a minimum in the groups despite a condition known as "bahay fever." This state was essentially irritability and a low threshold of annoyance brought on by extremely limited living space in overcrowded barracks. A bahay is a small one-room Philippine hut that houses an entire family.

In the group, it was usual to help a fellow group member if he was sick. Often, a healthier member would take a sick member's place on a work detail. Occasionally, an individual would develop a depressive reaction in which he would lose interest in himself and his future. This was reflected by quiet or sullen withdrawal from the group, filth of body and clothes, trading of food for cigarettes, slowing of work rate to a level that invited physical abuse from the Japanese, and an expressed attitude of "not giving a damn" or "what's the use." If these attitudes were not met with firm resistance by companions, camp leaders, or medical personnel, death inevitably resulted. The most successful measures in combating this reaction

[38] See footnote 19, p. 940.

included enforced soap-and-water bathing, shaving, and delousing; obtaining for the individuals a few days' rest in camp or easier work conditions; and a mixture of sympathetic interest and anger-inducing attitudes. Victory was assured with the first sign of a smile or evidence of pique.[39]

Pay Also Buoys Hope

Early in December, the Japanese authorities informed the Americans that the officers would be paid at the same rate of pay as the Japanese. The American enlisted men were to be paid a small wage of 10 centavos for each day that they worked. At the prewar rate of exchange, 10 centavos was the equivalent of 5 cents of American money. The officers would not receive backpay. They would receive only a portion of current pay with the remainder being deposited in the prisoner's name in the Japanese Postal Savings. For example, the salary of a Japanese major was about 130 pesos per month. Accordingly, the American counterpart in rank was entitled to the same sum. However, he was given only 30 pesos, and 100 pesos was credited to his account in the Japanese Postal Savings.

This source of income was welcomed but it did not represent a large sum for purchases, as inflation had already appeared. Yet, it was a slight improvement in living conditions for the time. Later, inflation was to nullify the value of these payments.

Arrival of Red Cross Supplies

Shortly before Christmas 1942, a Swedish exchange ship, the *Gripsholm*, brought its first cargo of Red Cross supplies. Each man in camp was given three small parcels; additionally, from the bulk shipment, canned beef, meat and vegetable stew, and sugar were issued through the mess.[40]

Each of the three parcels contained a can of beef, a can of Spam, a can of sardines, American cigarettes, chocolate candy, sugar, powdered milk, and a few small articles such as instant coffee and bouillon cubes. It is difficult to describe the elated reaction of each man as he opened all his packages to see this "manna from heaven." Many were restrained, merely handling and inspecting the articles, reading the labels, and sniffing the aroma of the chocolate and the powdered milk. Others smoked cigarettes in chain fashion, slowly inhaling each puff. How each man conserved or consumed this sudden windfall of food reflected his personality. Some of the prisoners immediately started smoking the "Stateside" cigarettes and drinking the instant coffee. Indeed, there were many instances of severe insomnia during the night after the receipt of the packages. Others immediately started eating some of the canned beef, Spam, or sardines.

[39] See footnote 19, p. 940.

[40] Cooper, *op. cit.*, p. 120.

One prisoner consumed all or most of one of his packages of food immediately on receiving it, and died shortly thereafter. No autopsy was done, so it is not known whether his death was due to a beriberi heart, coronary disease, or an acute dilatation of the stomach.

The methods of disposal or conservation of food indicated a correlation between the type of personality and the way he handled his recent acquisition. Those individuals who were fairly stable throughout captivity enjoyed an initial feasting on the food and other good things; this enjoyment did not reach the point of excessive consumption. The somewhat unstable, the very dependent, or the psychopathic individual truly "lived for the moment." Food was consumed to excess with no thought of tomorrow; the less stable actually bartered food for cigarettes or chocolate or coffee. The bargaining was not well thought out by the impulsive, unstable individual. He usually literally gave away "his birthright for a mess of pottage."

Among the stable individuals and groups, there was a very objective conservation of these rations. After the initial mild feasting and enjoyment, the remainder was conserved for either special occasions or possible illness. In this respect, a quan group usually influenced this conservation favorably. Leadership within the quan group aided the stability of the entire group. This was especially true in the rate of consumption of the Red Cross packages. Soon, the entire camp became cognizant of the Red Cross bulk shipment of foods and supplies, intended for general issue and additional to the individual packages. This knowledge led the stable, well-integrated individuals to conserve their own individual containers with greater care, while the less stable individual continued to consume his own packages or to barter the contents.

It is also interesting that, with the arrival of the Red Cross foods, the Japanese became much more generous in their supply of carabao, which was issued daily, for a time.

In addition to the foods, the Red Cross shipment contained a large supply and wide variety of medicines, so that most diseases could be adequately treated. No antiamebic drugs came in this shipment, and the supply of vitamin concentrates was limited. Since the diet was now adequate, vitamins were not nearly so needed as they had been months previously. The most prevalent deficiency disease at this time was beriberi peripheral neuritis, and although progress was slow, most of the cases began gradually to improve with the better diet.

As a direct reflection of a more adequate diet, a definite improvement occurred in the behavior and attitude of the general prisoner population. The favorable reaction of the prisoners to the dry season along with a slightly improved diet in November was now augmented by the Red Cross shipment. Large numbers of nonhospitalized patients still suffered from beriberi and other deficiency diseases, but the individual's reaction to his illness improved. During the first months of severest deprivation, an ob-

sessive rumination about the need for proteins was prevalent. Perhaps this thinking was in some degree iatrogenic and was initiated when medical officers attempted to explain the etiology of the many deficiency diseases. When the protein content of the food packages and the general issue of the bulk foods in the Red Cross shipment were now a part of daily living, many patients with deficiency diseases and prisoners suffering from other ailments felt "protein-happy" and persuaded themselves that a panacea for their illness was now available. Doubtless, the satiation experienced from this supplemental diet produced such euphoria. It is possible that much of the unplanned, impulsive initial consumption of food immediately upon its receipt was less evidence of a bulimia than a belief that rapid ingestion of the food would effect an almost immediate cure of all the deficiency ills suffered by the individual.

The improved attitude and behavior of the general nonhospitalized patients were evidenced in dispensary calls. Less time was utilized in impromptu psychotherapy for neurotic complaints and there was much less evidence of self-pity. Men who were assigned to the Japanese labor projects and to details about the prison compound worked with energy bordering almost on vim. Prudently, however, the laborers usually performed only enough work to evoke a degree of satisfaction from the Japanese, conserving as much of their limited energies as possible.

Increased sexual interest occurred shortly after the appearance of the increased food ration. This interest was reflected by an increased incidence of nocturnal emissions, by masturbation, and by homosexual practices—overt in a small susceptible group, covert in a much larger group. Camp plays placed emphasis on female impersonations and female roles. Homosexual practices became a subject of group knowledge and discussion and almost reached a level where internal official measures needed to be applied.[41]

During the period of relative plenty, the prisoner with dependent traits appeared less dependent. Apathy and depression were still in evidence, but mainly among the hospitalized patients. Certainly, it can be said that, during this time, the titer of the will to live was raised among the majority of the prisoner populations as a result of the improved conditions.

The food issue from the general mess consisted mainly of canned beef, stew, and carabao meat. There was a moderate amount of suspicion toward prisoner personnel in the mess relative to the distribution of these high protein foods. This type of feeling occurred especially among those prisoners who had consumed or bartered the foodstuffs in their individual packages. Human nature being what it is probably allowed some few persons that were assigned to the mess an opportunity to profit selfishly, but such practice did not become widespread or general.

That the food was lifesaving was conclusively demonstrated. When the

[41] See footnote 19, p. 940.

diet became adequate and the men started gaining weight, the death rate fell from 300 a month to three or four a month within 3 months.[42]

Thus came a gradual transition of phase one into phase two of captivity. There was no abrupt borderline between these two phases. Certainly, the end of phase one began gradually with the beginning of the dry season and the slight issue of meat. It was accelerated by the Red Cross supplies and gradually crossed to the second phase of captivity with the marked decrease in death rate and disease.

SECOND PHASE OF CAPTIVITY

Decrease in Hospital Population

In February 1943, the Japanese began using many prisoners to work on a farm on the outskirts of the prison camp and at an airport under construction near the camp. The quotas of laborers for these details frequently fell short of the number set by the Japanese. The latter quickly remedied that situation by merely ordering the American camp headquarters to discharge several hundred patients from the hospital. The American medical headquarters carefully screened, in the limited available time of 24 hours or less, their hospital population and discharged the least ill.

The discharged patients were not as well as the nonhospitalized by any means, but there was no alternative to compliance with the Japanese orders. As a result, many more men came to the dispensary because of relapses in malaria and dysentery and because of new or recurrent neurotic complaints. During this time, the additional food was still available in the general mess. Although there was an additional dispensary workload, some of the recently discharged prisoners benefited emotionally by their work assignment. This was true mainly in those who did not suffer a recurrence of illness. While in the hospital these individuals had become dominated by ruminations of death and disability. After a few days of labor on the farm or on the airport detail, they found that they were capable of more exertion than previously believed possible. For some, this was an exhilarating experience which was discussed with others and which created a more animated interest in living.

However, other recently discharged prisoners again grew apathetic and depressed, professed much self-pity and sought relief at the dispensary for real but slight illnesses, or for purely neurotic complaints. The task of performing effective psychotherapy at the dispensary level was difficult. At this time, the food problem was a minor issue, but who was to evaluate the degree of pain suffered by a beriberi victim with peripheral neuropathy? How was psychotherapy to cope with the environmental factors in

[42] Cooper, *op. cit.*, p. 120.

the patient's illness? How was psychotherapy to help the patient understand secondary gains as applied to himself?

Japanese Show Some Medical Interest

As in the previous phase, the incidence of functional psychosis remained low. About 30 or 40 psychotics of both organic and functional origin were in the neuropsychiatric ward. At this point, a few words might be appropriate about the Japanese attitude toward psychoses. The Japanese regarded psychosis as a serious illness. Early in the camp's existence, a patient with cerebral malaria was found outside the compound by Japanese guards. This was an offense punishable by execution. A group of American officers presented themselves to the Japanese and explained that the prisoner was psychotic. His life was spared. About a year later, another psychotic escaped from the latrine. The Japanese then ordered the Americans to tie ropes around the waists of psychotic patients going to the latrine. A parade of these patients with ropes around the waist resembled a group of mountain climbers except for the lack of appropriate clothing and equipment.

Early in 1943, a group of Japanese arrived in camp to study peripheral neuropathy. Four to six American physicians were assigned to assist the Japanese. There were several Japanese officers in this study group, but only one Japanese physician participated actively. Twelve prisoner-patients, a good cross section of the group suffering from this disorder, were studied.

The Japanese physician was quite enthusiastic about this survey initially as he thought that he had discovered a new disease entity. His interest lagged somewhat when he discovered that similar syndromes had been described as far back as 1862; yet, he gave whatever assistance he could. The study took approximately 5 months. The conclusion that the neuropathy was caused by a markedly deficient diet was not accepted by the Japanese physician. The study certainly did not favorably influence the diet, which was again deficient by the time the study was terminated.

Food Situation Deteriorates

The Red Cross food issued by the mess continued into March 1943. The death rate was now 3 or 4 per month. It would appear that an adequate adjustment to imprisonment would be made when the intense struggle for survival was no longer so much of an everyday problem. Yet, many did not adjust to the somewhat improved situation. After the general mess issue of Red Cross foods was exhausted, the Japanese began to issue less carabao. The less stable individuals were without a reserve of food, as they had consumed or bartered it soon after they received it. About April or May 1943, this group again displayed much anxiety about the decreased possi-

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bility of their survival due to diminished rations. Work details on the farm, on the airport, and in the camp were accelerated by the guards, and a larger quota of work was assigned the prisoners. In the Japanese mind, apparently, there was a simple reasoning—more food immediately should produce more work. To counteract the Japanese greater expectation of productivity, the Americans soon developed skill in appearing very busy but in reality expending very little more energy than previously. Those who were unskillful in "going through the motions" of hard work were frequently detected by the guards and abused.

Rumors Maintain Morale

Even with the return of deprivation in food supplies, and increased workloads, morale did not drop immediately. Many rumors of U.S. victories were permeating the prison camp. Some were groundless, but they instilled an optimism which, although unrealistic, provided emotional support for many of the captives. Constant conviction that the "Yanks would get here in two or three months" required a frequent revision of optimistic guessing when liberation did not materialize in the expected time period. Doubtless, some optimists became depressed after one or more disappointments over the nonrealization of their hopes. Later, in 1943, a small radio receiving set was surreptitiously constructed in the camp. The optimistic could then claim the authenticity of the radio source as a foundation for their high hopes, although very few men in the camp actually were ever proximate to the radio source of the news.

Some of the rumors that infiltrated the camp before the radio was constructed were about reports that a largess awaited the American prisoners when they returned to the United States. A grateful mother country was reported to bestow homesteads, cars and the necessary gasoline for a year, promotions in rank, and many other favors in gratitude to the prisoners who had sacrificed so much for their country. The prisoners who nurtured these rumors were, in the main, among the more dependent personalities of the camp. Possibly, the origin of these rumors could be traced to some prisoner or prisoners whose fantasy life was especially florid.

All rumors furnished material for conversation on work details and in the few hours of idleness between the evening meal and the hour of retiring. In the spring of 1943, there was more anxiety about one's fate. Now that the death rate had declined, the sameness of prison life was burdensome. It could not be termed "ennui"; instead, it was an anxious discontent that progressed to anxiety manifestations of irritability and quarrelsomeness, insomnia of mild to moderate degree, and psychoneurotic complaints.

The uncertainty of the duration of captivity was in itself anxiety provoking. To face each new day with no more than a blind hope that its

passing would bring one closer to the time of repatriation certainly did not lend much ego strength. The military prisoner in a disciplinary barracks or the civilian offender in a penitentiary knows the approximate date of release from confinement, and his adjustment to his determined period of imprisonment is probably less difficult than in the case of the prisoner of war.

This was approximately a year after the capitulation of the Philippine-American Forces. Because of the military might of the United States, some prisoners had assumed that a year would be ample for these forces to retake the Philippines; yet there was no tangible evidence of such activity. These impractical prisoners believed they were written off as expendable by their mother country, and their anxiety had a heavy shading of depression.

Some relief from this anxiety again was obtained in strong group identification with one's quan group, work group, acquaintances of one's former outfit. Sanitation at this time was tremendously improved. Food, though still meager by U.S. standards, was better than in 1942. The general issue of Red Cross foods continued for a little more than 3 months in 1943. The Japanese were supplying less carabao meat by March 1943; later in the year, rice rations were reduced and mungo beans were no longer issued. The farm was now beginning to produce vegetables. Unfortunately, the Japanese usually sent the vegetables to their kitchens and issued only the leaf portion to the prisoners. Later, as the farm became more productive, the Americans also received some of the vegetables.

One is inclined to assume that being in a work detail on the farm or the airport would tend to neutralize anxiety. This did not appear to be true for most of the prisoner-laborers. Most of the prisoners sent to work had residuals of one or more diseases suffered earlier in captivity. Their immediate problem was to simulate good productive labor and yet not tax their limited physical capacity. The attempt to maintain the delicate balance of simulated earnest effort and the simultaneous conservation of one's physical resources was often precarious. Some of the Japanese guards were rather brutal in quickly beating those who did not perform as prescribed or did not fulfill the Japanese quota of work. For the foregoing reason, "work therapy" was usually not successful in ameliorating the anxiety symptoms among the prisoners. The onset of the rainy season, about June, with a subsequent decrease in work details, did relieve the work situation somewhat.

Other Factors Lower Morale

In the summer and fall of 1943, many prisoners again showed some depression and apathy. These symptoms can be again attributed to the dismal existence during the severe rains and a decline in the amount of food issued by the Japanese. Other factors were also contributory: The

surreptitious radio news contained very little information of American and Allied victories, no mail was being received from the States, and even the issue of Japanese English-language propaganda newspapers had been discontinued. Despite the reappearance of many instances of depression and apathy, psychoses did not increase. Suicides, per se, were rare during the entire imprisonment. It may be that many of those who died of disease during the initial period of captivity were, to some degree, self-induced deaths of a passive nature. However, active self-inflicted injury was rare. Nardini cited only three active suicidal attempts.

The hospital population decreased in late 1943. This was not due to the improved health of many of the sick prisoners but to such direct orders of the Japanese to the Americans as "tomorrow you will discharge two hundred from the hospital." Care was exercised in selecting the least sick, but those discharged were still ill. When these supposedly "well" patients were assigned to work details, a frequent reaction of hostility occurred because the sick prisoner felt that the American officials were not properly safeguarding his interests.

By the fall of 1943, the hospital population had been reduced to 400–500 patients. This created a "surplus" of medical officers as the Japanese fixed the number who could be used in medical duties. As a result, a large percentage of medical officers and enlisted medical personnel were used as (1) "coolies" working barefooted on the prison farm; (2) woodcutters; (3) pick and shovel workers on the airport; and (4) carrying details, for hauling heavy litters of raw vegetables from the farm to the prison supply building, a distance of approximately a mile.[43] The medical officers and enlisted men thus assigned were apparently a stable group for there was little, if any, overt psychological reaction to these assignments that disregarded their professional training.

In the fall of 1943, with the decrease in rains and the beginning of the dry season, the prisoner population manifested less evidence of depression, but chronic anxiety remained. Food was again scarce, and very few prisoners had packages remaining from the 1942 Christmas issue. The issue diet could be supplemented from the authorized commissary, but fruits, chickens, ducks, and mungo beans were in less ample supply than earlier in 1943. Many prisoners were hopeful that another Red Cross shipment would arrive in December. During November, prisoners moved to Cabanatuan from Manila brought rumors that a shipment of Red Cross supplies was in Manila. However, the basic level of anxiety was not materially altered as many previous rumors regarding repatriation and return of the American forces had come to naught. Pessimistic prisoners were quite cynical about rumors, but it is a reasonable assumption that even the most cynical secretly hoped that favorable rumors had some foundation.

[43] Cooper, *op. cit.*, p. 122.

Group psychotherapy, although not designed or labeled as such, was by now a fairly well-established procedure in the camp. Nondirected sessions of self-administered therapy were accomplished in small groups of 20 or 30 prisoners who gathered together after the evening meal. Larger group gatherings required previous authorization from the Japanese. In some of the group meetings, a prisoner would discuss a subject with which he was familiar and in which the group had some interest. For example, a navigator would discuss the constellations and, if the evening skies permitted, would point out various planets; or a prisoner who had worked in the Philippine gold mines would discuss goldmining. After such presentations, the group might then give vent to "gripes," or discuss current rumors, or speculate on the strategic situation of the war.

These sessions strengthened individual ego defenses through stronger identification with the group, and also permitted much mental catharsis. Evidence of the value of these sessions soon became apparent for members of these "therapy" groups manifested less irritability, seclusiveness, and dependency than did individuals who isolated themselves about the bahay with sparse communication, each occupied only with his thoughts.

Although the Japanese continued to pay the officers, about this time (Christmas 1943) food in the commissaries decreased steadily. The pay for officers was raised from 25 to 40 pesos, but inflation nullified the raise. In addition, it decreased the availability of supplies from friendly Filipinos. During this period, some mailbags were received after the usual delay. From these packages and other sources, the prisoners were able to eke out something less than a miserable existence. Red Cross packages were sparse and were usually quickly consumed because of feelings of hopelessness.

During 1944, the incidence of mental disease increased slightly for, with hope waning, additional psychotic reactions and psychoneuroses developed. Anxiety and depression were the most apparent reactions noted. Many of those not overtly affected, however, still believed that help would arrive shortly before the rains came. Of the several thousand pellagrins who survived the rigors of imprisonment, approximately 18 suffered psychotic episodes—primarily of the depressed form with an occasional hypomanic state. Maj. James G. Bruce, MC, and Miss Adams later reported that the food and general health situation during this time was similar at Santo Tomas and Bilibid Prisons.

Much resentment developed because the prisoners knew that much of the available Red Cross supplies were stolen or otherwise expropriated. Discipline was a problem at this time, as it had been all through the time of imprisonment, with infractions of camp rules more numerous and more difficult to handle as the food and health problems made the men more restive and suspicious regarding the fairness in distribution.

The last important mail and package reception came some time in June 1944, at which time the amount of food and medicines, except quinine,

was restricted. Amebic dysentery remained an ever-present problem since medication for this disease was virtually unavailable. By this time, the men suffering from dysentery were rigidly restricted to a special area on the lower side of the camp. In this area, morale, already low, sank lower, and the men became more embittered and resentful.

The second phase of imprisonment came to an end on 21 September 1944, at which time excitement temporarily increased morale. Courage and new hope developed. However, this was counterbalanced in October by anxiety over the possibility of being shipped to Japan.

On 19 October, Major Bruce and a detail of 10 officers and 65 corpsmen were transferred to Bilibid Prison to take charge of the hospital there. Most of the nonhospitalized prisoners at Cabanatuan were also transferred to Bilibid, for possible shipment to Japan. By 21 October, all but 513 Americans had been moved from Cabanatuan to Bilibid. On 13 December, a draft of 1,619 officers and men from Bilibid were packed into the holds of a Japanese transport and started on their way to Japan.[44] The saga of this last group needs a special chapter of its own in the history of human misery and waste, owing to tragic errors and mischief on the part of the Japanese.

THIRD PHASE OF CAPTIVITY

December 1944 was a grim period—rife with rumors among the 513 left at Cabanatuan and those prisoners remaining at Santo Tomas and Bilibid. Morale and health continued to decline despite the occasional lift gained by seeing U.S. planes overhead and busy.

"Freedom"

On 7 January 1945, at Cabanatuan, and on 4 February 1945, at Bilibid, the regular guards marched away, and the prisoners were considered to be "free" as long as they remained in their respective compounds. Matters in Santo Tomas and Bilibid turned worse, if possible, in early January, whereas at Cabanatuan, through a peculiar quirk of fate, the prisoners now "free" ate better than they had for the entire period of captivity. Medicines became available, and all hoarded Japanese supplies were used as required. Col. James W. Duckworth, MC (fig. 94), took over the command of the Cabanatuan prison camp, making Maj. (later Lt. Col.) Emil P. Reed, MC, his executive officer. Under these officers, the discipline of the camp improved and all benefited. The anxieties relevant to their fate kept the prisoners emotionally upset, but morale improved. Although the psychotic ward retained the same number of patients, these patients improved both physically and emotionally. At Bilibid, there was evidence of irritability

[44] Cooper, *op. cit.*, p. 125.

FIGURE 94.—Col. James W. Duckworth, MC (center), in an interview with reporters after being released from the prison camp at Cabanatuan, and brought to the 92d Evacuation Hospital, 31 January 1945.

and hostility toward disciplinary authorities, attitudes productive of much danger for all personnel.

Diseases Encountered in Captivity

As previously noted from October 1944 through January 1945, the Japanese sent out large numbers of "healthy" men from Cabanatuan. By the time the remaining 513 prisoners were liberated, a small in vivo experiment had been completed. All 513 prisoners at Cabanatuan (figs. 95 through 101) had been ill with malaria, amebic and bacillary dysentery, and various forms of avitaminosis in addition to generalized malnutrition. These prisoners were kept at Cabanatuan because they were considered not fit enough to take a long and hazardous voyage to Japan during which rations would be even poorer than before.

In October 1944, near the close of the rainy season when mosquito control was poor and infestation was very high, an epidemic of dengue fever made its appearance. In the course of the next 3½ months, almost everyone in camp fell victim to this disease.

FIGURE 95.—Rescued prisoners of war from the prison camp at Cabanatuan, Luzon, P.I., en route to the 92d Evacuation Hospital, Guimba, Luzon, 31 January 1945.

FIGURE 96.—A prisoner of war rescued from a Japanese prison camp at Cabanatuan, Luzon, P.I., being helped across the lawn, at an American hospital, 1 February 1945.

FIGURE 97.—An injured prisoner of war, from the prison camp at Cabanatuan, Luzon, P.I., being carried to the 92d Evacuation Hospital, Guimba, Luzon, 1 February 1945.

After the occurrence of dengue fever en masse, another group of symptoms came to afflict most severely those individuals who seemed to have been lightly harassed by dengue fever. This syndrome made its appearance from 15 to 24 days after the patients were struck down by dengue. Patients stated they saw double and became dizzy after very slight exertion, or, in some cases, after no exertion. During the night, symptoms receded to a variable degree. Following this, patients experienced heaviness of eyelids and somnolence, rapid fatigue of facial musculature while eating, and weakness of the nuchal muscles, with drooping of the head. Salivation decreased, and food accumulated in the mouth.

The somnolence, varying from individual to individual, was associated with fever, which, in some instances, ran from 103° to 105° F. for a period of 3 to 4 days, decreasing by lysis over a period of 4 to 5 days. The spinal fluid, in some cases, indicated a nonspecific type of reaction, in that cells varied from 2 to 3 to as high as 50 per field, with at times a moderate increase in pressure. No increase in protein was found; sugar tests were not done for lack of requisite laboratory reagents.

Neurologic examination performed on those who complained of weakness in muscles of the neck, eyes, jaws, and extremities revealed the following: Pupils reacted sluggishly to light and accommodation; deep tendon

FIGURE 98.—A rescued prisoner of war giving his name and home address to a clerk at the hospital so his family can be notified of his release from Cabanatuan prison camp, 31 January 1945.

reflexes were diminished—at times to almost a complete areflexia; and abdominal and cremasteric reflexes were not significantly altered.

Neuropsychiatric inventory demonstrated that, except when patients were distressed by high fever, no psychopathologic disorders were found. Patients complained very bitterly of the loss of their jobs on the farm (where they had obtained more food and other comforts) and of restriction to the hospital area. Some of the "cases" were probably developed by men who wanted to avoid work on the farm. When the Japanese medical officer in charge of the camp learned of the tentative diagnosis, he was convinced that these patients were suffering from encephalitis, dangerous to himself and the guards. He immediately ordered isolation and quarantine for all those suffering from so-called "limberneck" and sleepy facies. Men mingled at the latrines and at mealtime—otherwise "quarantine" prevailed.

The "encephalitis" was considered to be a sequela of the dengue fever which had been endemic 2 or 3 weeks earlier. The exact diagnosis was in doubt, although the relationship previously mentioned, namely, that those who had been most severely stricken with dengue fever, were most lightly affected by this other disorder, and vice versa, was considered significant.

FIGURE 99.—A rescued prisoner of war giving his name and home address to a clerk at the hospital so his family can be notified of his release from Cabanatuan prison camp, 31 January 1945.

The differential diagnosis included, of necessity, a toxic state secondary to the ingestion of large amounts of Philippine casava root, which at the time formed the bulk of the diet for those classified as workers. Poisoning from this part of the diet could be attributed to a casava alkaloid which resembles belladonna in its toxic aspects, including nausea and vomiting and a generalized cold, clammy perspiration over the entire body. This reaction was found particularly in those who, in an attempt to gain additional sustenance, were careless about removing the reddish-purple cambium layer of the bark of the casava root. Another component of the diet was a poor quality of salt fish which, in most instances, showed evidence of decomposition and of fly and maggot infestation.

All the symptoms receded in the course of a few days, when the protein portion of the diet was markedly increased, until each man was receiving the equivalent of 100 grams of carabao and Nelors flesh.

First Reactions to Liberation

The sudden shocking change in the camp at Cabanatuan, on 7 January 1945, temporarily stunned the prisoners and then galvanized them into a

FIGURE 100.—Rescued prisoners of war from the prison camp at Cabanatuan, Luzon, P.I., eating hamburgers the first time in 3 years, 92d Evacuation Hospital, Guimba, Luzon, 31 January 1945.

series of feverish but well-organized raids on the food and medical supplies left behind when the regular Japanese guard detachment marched off. The officer in charge informed the prisoners that they were free as long as they remained in the compound.

Discipline became tighter, with morale benefits to all 513 prisoners. As food supplies became more plentiful, physical and emotional conditions improved, including those of patients who had been confined to the locked ward. Later, anxiety and uncertainty increased, and discussion turned toward means of escape from the compound to forestall a possible Japanese massacre. Gun emplacements and a concentration of Japanese troops were noted to the east of the camp. This period came to an abrupt close when the men were rescued, on 30 January 1945, by the 6th Ranger Battalion under the command of Col. Henry A. Mucci. The patients in the locked ward rose to the occasion and managed to help themselves reach the American lines with a minimum of difficulty. There were about 24 such patients—about one-third with schizophrenic reactions, one-third with the remnants of peripheral neuropathic sequelae, and one-third with psychophysiologic reactions, mixed in type. It was noted that, when the rest, or most, of the prisoners recovered from the initial shock of rescue, they found it difficult to give up their dependent, autistic, hostile, and aggressive

FIGURE 101.—Former prisoners of war from the prison camp at Cabanatuan, Luzon, P.I., being admitted to the schoolhouse at Guimba, which had been converted into a hospital for them, 31 January 1945.

reactions. This varied from man to man and depended in great part on the agencies and people who helped or hindered the process of personality reconstitution. Hostility and aggression were manifested in various activities and attitudes: in excessive alcoholism, in infraction of hospital rules, in retention of the hostile aggressive dependent state, in marital and family difficulties, or in such overt acts of aggression as robbery and fighting.

NEUROPSYCHIATRIC SURVEY OF LIBERATED PRISONERS

In September and October 1945, teams of specialists were sent to major debarkation points in the United States to examine the men who were recovered from the Japanese Islands and the Asiatic mainland (fig. 102). These men had suffered much in the time spent in imprisonment, in the horrible and fantastic experiences during their transportation to Japan in holds of the ships, and in the enforced labor which followed their arrival in Japan and on the Asiatic mainland. It appeared that at the time of their return to American control, they were at their limit of capacity for personality integration.

FIGURE 102.—Debarkation of liberated prisoners of war from Japan and Manila, P.I., 12 September 1945.

A total of 4,617 American military personnel, of whom 4,187 had been in captivity for 39 months or longer, were thoroughly examined by teams of specialists to determine what effect imprisonment had had on their health. Included also was a neuropsychiatric examination, the results of which were reported substantially as follows:[45] The liberated prisoners who were seen on the processing line did not represent an average segment of the population, but were a select group. They were for the most part enlisted men who voluntarily separated themselves from their families and friends by enlisting in the Army; selection continued in combat, the emotionally less rugged fell out, and still further selection went on during their imprisonment. All these factors served to weed out those men who were less able to cope with hardships, hazard, and deprivation.

Several unique characteristics of the group were clearly evident. The entire examination procedure was carried out in a very sober, orderly fashion. The line was quiet, with no talking and no "horseplay." There was no rushing or pushing or display of impatience. Instructions were followed without question, and there was no show of initiative. The group as a whole was very docile, without any display of enthusiasm or hilarity. The atmosphere, however, was very friendly.

[45] See footnote 31, p. 945.

The general impression gained was that the group was above average intelligence and stability. This was further substantiated by the statements of the repatriated prisoners: that the imprisonment constituted a "survival of the fittest" and the "eight balls," the emotionally unstable and inadequate, did not survive—"they did not seem to have sense enough to take care of themselves, and there was no one to help them." The usual story concerning those who did not survive illness was that such prisoners lost interest in eating and traded food for cigarettes. They became very pessimistic about any future release from captivity, and lowered morale in the group.

Psychiatric Findings

The predominant immediate emotional pattern of the recovered prisoners was a mixture of a feeling of well-being and optimism. The feeling of well-being might be called the euphoria of relief. There was little spontaneous expression of hostility and resentment toward the Japanese or toward anyone else for that matter. However, with little probing, one was able to learn that practically all the men had tremendous hostility and resentment which was channeled entirely toward the Japanese. Some had particular anger for a certain few Japanese, but almost all indicated hostility for all Japanese.

After release from prison, some men developed increasing anxiety and feelings of inadequacy; one man became psychotic. The longer they were out of prison, it seems, the greater was the anxiety. Dynamic factors were not uncovered. Some admitted being apprehensive about the future for they believed they had lost ground and had much to catch up. While many expressed a desire to remain in the service, others indicated that they wanted to return home first and consider things before arriving at a decision. Most men emphasized that they were not worried. They felt capable of taking things "as they come." They had learned how to survive on so little that nothing could now appear difficult.

Many indicated a feeling of accomplishment. As one sergeant put it: "The boys became men"; another, "I wised up. I'm older, more serious. I don't want to raise hell so much. I've learned about people. I know the score now." All indicated that they had gained by their experience and had matured more than nonprisoners in the same length of time.

They believed that they had achieved much insight into human nature because they had seen man without the veneer of civilization. All believed that they had gained a better appreciation of what is important and unimportant in life, and stated with feeling that "it is the little things of life which are important." They had lost their respect for much that has come with civilization. Upon release and return to the United States, they seemed

to believe that the entire situation was unreal and manifested strong feelings of group identification with their fellow prisoners.

In the entire group, only five cases of psychosis were found. Provision was not made for recording the date of onset nor the specific types. A definite history of a transient psychotic episode during imprisonment was found in only one man. Clearly defined psychoneuroses were also rare; the diagnosis (again unqualified) was made in only 34 instances, or 0.7 percent of the entire group. (It is not known whether or not these antedated imprisonment.) Psychological disturbances were apparent, however, in 12.5 percent of the men (table 78). Overt anxiety was by far the most common single symptom presented. There were a few instances in which men had crying spells when they were off by themselves. They tried to conceal these emotional outbursts and would acknowledge them only after pointed and repeated questioning. Only a very small number were depressed, and the incidence of insomnia was smaller than one would expect to find in an unselected group of "normal" civilians. Surprisingly, few were bothered by significant feelings of resentment (table 79).

Table 80 suggests that those who had been in captivity for less than 6 months, and more than 36 months, were more apt to show psychological disturbances. However, the number of men in captivity for intermediate periods was not sufficiently large, in proportion to the entire group, to permit the drawing of any statistically valid conclusions. Further, all those who had well-defined psychoneurotic reactions had been in captivity for at least 39 months.

At first, the men were concerned about their potency, but they were reassured after a short time in the United States. Surprisingly, few of the soldiers could recall having had battle dreams. It is possible that such

TABLE 78.—*Incidence of psychiatric disorders (found on screening examination) in 4,617 men recovered from Japanese prison camps*

Diagnosis	Number	Percent
No well-defined psychiatric disorder but with significant psychological disturbance such as mild anxiety, concern over health, depression, sense of guilt, decreased self-confidence, and so forth	576	12.5
Psychoneurosis	34	.7
Psychosis	5	.1
Mental deficiency	2	(1)
Psychopathic personality	0	0
Total	617	13.4

[1] Less than 0.1 percent.

Source: Brill, N. Q.: Neuropsychiatric Examination of Military Personnel Recovered From Japanese Prison Camps. Bull. U.S. Army M. Dept. 5: 429–438, April 1946.

TABLE 79.—*Incidence of specific signs and symptoms of psychiatric disorders*[1] *(found on screening examination) in 4,617 men recovered from Japanese prison camps*

Diagnosis	Number	Percent[2]
Overt anxiety	454	9.8
Concern over health	92	2.0
Insomnia	63	1.4
Decreased self-confidence and respect	42	.9
Depression	33	.7
Resentment and bitterness	27	.6
Concern over domestic troubles	16	.3
Guilt feelings	4	([3])

[1] Time did not permit the performing or recording of intensive psychiatric examinations. For practical reasons, examiners were requested to record the incidence of just those symptoms included in the table. While many prisoners showed varying degrees of euphoria, this was expected and was not considered of great significance in view of the circumstances.

[2] Some had more than one symptom, accounting for the lack of correlation with the data in table 78.

[3] Less than 0.1 percent.

Source: Brill, N. Q.: Neuropsychiatric Examination of Military Personnel Recovered From Japanese Prison Camps. Bull. U.S. Army M. Dept. 5: 429–438, April 1946.

dreams did occur initially but were forgotten after 3½ years of imprisonment.

In general, the mental health of the group was (at the time of examination) surprisingly good. It had been expected that, after such long confinement under such soul-trying circumstances, evidence of overt psychopathology would be the rule rather than the exception.

Neurological Findings

As was expected because of the severe dietary restrictions, polyneuritis (polyneuropathy due to vitamin B deficiency) was the most common disorder (table 81). Some evidence of peripheral nerve involvement was

TABLE 80.—*Incidence of psychological disturbances and psychiatric disorders in relation to length of captivity*[1] *(found on screening examination) in 4,595 of 4,617 men recovered from Japanese prison camps*

Duration of captivity (months)	Number of men	Psychiatric disorders	
		Number	Percent
0–6	218	22	10.1
6–12	76	6	7.9
12–24	62	3	4.8
24–36	44	3	6.8
36–48	4,195	566	13.5

[1] All those with well-defined psychoneuroses had been in captivity for at least 39 months.

Source: Brill, N. Q.: Neuropsychiatric Examination of Military Personnel Recovered From Japanese Prison Camps. Bull. U.S. Army M. Dept. 5: 429–438, April 1946.

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TABLE 81.—*Incidence of neurological disorders (found on screening examination) in 4,544 of 4,617 men recovered from Japanese prison camps*

Diagnosis	Number	Percent
Polyneuritis (all causes) minimal	572	12.6
Polyneuritis (all causes) marked	31	.7
Degenerative disease of the central nervous system	23	.5
Infectious disease of the central nervous system	5	.1
Encephalitis (including chronic)	2	.04
Poliomyelitis	1	.02
Traumatic brain or spinal involvement	10	.2
Traumatic peripheral nerve involvement	33	.7
Total	677	14.9

Source: Brill, N. Q.: Neuropsychiatric Examination of Military Personnel Recovered From Japanese Prison Camps. Bull. U.S. Army M. Dept. 5: 429–438, April 1946.

found in 13.3 percent of the entire group; however, most did not show severe impairment. Some superficial sensory loss, frequently patchy and generally in the lower extremities, was the most common manifestation (10.4 percent) (table 82); 4.6 percent showed diminished tendon reflexes, the significance of which is open to question, since an appreciable percentage of "normals" would show the same finding. Muscle weakness due to nerve involvement was not common. Optic atrophy was recorded in 64 cases. The diagnosis was based on changes in the optic disks associated with impairment of vision. One man was observed with a probable intracranial expanding lesion of the left hemisphere, and there was only one case of probable early multiple sclerosis.

The incidence of neurological disorders in relation to length of captivity is given in tables 83 and 84.

TABLE 82.—*Incidence of specific signs and symptoms of neurological disorders (found on screening examination) in 4,544 of 4,617 men recovered from Japanese prison camps*

Diagnosis	Number	Percent
Muscle weakness due to nervous system involvement	59	1.3
Muscle and/or nerve tenderness	47	1.0
Muscle atrophy	13	.3
Diminished tendon reflexes	211	4.6
Impairment of sensation	478	10.4
Disturbance of gait	26	.6
Impaired pupillary reactions	15	.3
Ocular palsies	5	.1
Optic atrophy	64	1.4
Total	918	19.9

Source: Brill, N. Q.: Neuropsychiatric Examination of Military Personnel Recovered From Japanese Prison Camps. Bull. U.S. Army M. Dept. 5: 429–438, April 1946.

TABLE 83.—*Incidence of neurological disorders in relation to length of captivity (found on screening examination) in 4,595 of 4,617 men recovered from Japanese prison camps*

Duration of captivity (months)	Number of men	Neurological disorders	
		Number	Percent
0 to 6	218	19	8.9
6 to 12	76	8	10.5
12 to 24	62	5	8.1
24 to 36	44	7	15.9
36 to 48	4,195	635	15.1

Source: Brill, N. Q.: Neuropsychiatric Examination of Military Personnel Recovered From Japanese Prison Camps. Bull. U.S. Army M. Dept. 5: 429–438, April 1946.

It was estimated that at least half the personnel examined manifested polyneuritis symptoms at the time of their liberation which, in many instances, had subsided by the time that they were examined in this country. That 29.5 percent of those who had been free for 1 week showed some evidence of neuropathy in contrast to 10 percent of those who had been freed 8 weeks before the examination is suggestive confirmation of this impression.

Most of the examiners were impressed with the ease in which deficiency neuropathies responded to adequate diet and vitamin therapy. It appeared, however, that optic nerve involvement did not improve. In several instances, neuropathies were the result of trauma to the extremities, incurred as a result of beatings inflicted by Japanese guards, or sustained in mines, factories, or loading platforms where the RAMP's (recovered Allied military personnel) were compelled to work.

TABLE 84.—*Incidence of neuritis related to interval between release from captivity and time of examination, in 4,588 of 4,617 men recovered from Japanese prison camps*

Release (weeks)	Number of men in group	Neuritis	
		Cases	Percent
0	3	0	0
1	44	13	29.5
2	338	45	13.3
3	416	57	13.7
4	1,194	176	14.7
5	1,558	195	12.5
6	786	89	11.3
7	129	14	10.9
8	100	10	10.0
9	11	0	0
10	7	0	0
36	2	0	0

Source: Author's personally compiled statistics.

One examiner found mild hearing impairment in many of the men, manifested by an inability to hear a watch ticking.

Basis of Survival

It was wondered whether this group of survivors had any basic quality or qualities which enabled them to survive. That they had all experienced a shattering emotional period was obvious. During their period of confinement, they were starved, frequently beaten, and subjected at all times to the fear of death. They received little news of the outside world. Many had no word of their families during the entire period of imprisonment. Weight losses of 65 to 100 pounds were common. Disease was present at all times; pneumonia, dysentery, malnutrition, and vitamin deficiencies exacted heavy tolls. When one realized that these experiences were common in more or less degree to all and then witnessed the quiet demeanor of the survivors, he was led to search for basic reasons for their survival. A frequent statement by the RAMP's in regard to this question was "I never gave up hope." They would say of a friend: "He just gave up and died." One examiner said: "I do not believe that psychogenic death is possible, but there did exist in this group of survivors a tremendous will to live."

Many of the prisoners became even more sure of eventual liberation when they saw the Japanese homeland. They were quite sure that people who did things so poorly and were so ill equipped would never win. Others were not so sure of their own feelings. They stated that they "put their minds in neutral." All of them lived only for the day and they were interested only in food. Women, home, and families were not common subjects for thought or conversation. Indeed, when one of them would fail to concentrate on his food or begin to hoard food or gave way to morbid thoughts concerning his seemingly hopeless situation, he was earmarked by his companions as one quite likely to die shortly.

When those of lesser spiritual strength became ill, they were apt to give up and quit eating entirely; frequently, they would be dead within a few days. One fails to find a scientific reason or an adequate term to explain the reason for survival. He is led to a more common term, and it seemed to some of the examiners that "courage" was the best word. Those who had courage survived. They do not mean that courage alone would carry a man through serious disease or accident. Barring such, however, it seemed that the only common factor among the survivors was that they had courage. They never stopped believing in their ultimate return to America. They never stopped in their struggle for survival. They stole food and devised many clever ways of outwitting the Japanese. They ate anything that was available, including cats, dogs, silkworms, and other things repulsive to normal human beings. When struck with dysentery or malaria, they would

nevertheless attempt to carry on. This strength and courage had no connection with social background or education.

The men who survived testified almost unanimously that, through this very difficult period, they kept one important thing in mind: the hanging on in order to return to the States or to their homes or to values that had great meaning for them. They soon learned that, in order to adapt, it was necessary to accept passively what the enemy threw at them. This not only included the submarginal diet to which they realized they must adhere if they were to survive at all, but always to accept the constant attack on any feelings of self-respect, self-importance, or worthwhileness which remained. The Japanese used the potent weapon of keeping the men constantly irritated during working and resting hours so that the men never felt free of their captors for one moment. The men unanimously agreed that this was one of the most difficult factors with which they had to contend—"We are thus led to an unsatisfactory and unscientific conclusion: that moral fibre and morale and courage are common findings in a group such as this and that most of them felt that many of the men who died did so because they lacked courage."

Conclusion

In general, the mental health of the men was surprisingly good. While the findings of the screening were encouraging, most of the examiners had some reservations about prognosis and the future. While most ex-prisoners professed no concern about the future, by reason of their having been able to withstand the psychic trauma incident to their imprisonment, it was questioned how easily and how well they would be able to return to the fast-moving American way of life. At least half of the men expressed a desire to remain in the Army, which was not unusual because so many were in the Regular Army when they were captured. Some examiners believed that a considerable number of men would encounter serious difficulty in their process of readjustment and assimilation.

CHAPTER XXVII

American Prisoners of War Held by the Germans and Italians

Lieutenant Colonel Robert J. Bernucci, MC, USA (Ret.)

Prisoners of war all suffer from physical and psychological stresses due simply to the vicissitudes of war, as well as those maliciously devised by the captors. American prisoners of war in the hands of the Japanese generally suffered considerably more than those held by the Italians and Germans.[1] Thus, a brief examination of the experience of U.S. prisoners of war in the hands of the Italians and Germans is indicated so that a later summation of the overall psychological stresses that affect all prisoners of war, and the efficacy of efforts to combat such stresses,[2] may be understood.

In their attitude toward and treatment of American prisoners of war, the Germans and Italians, in most instances, abided by the Geneva Convention. Considering the atrocities which the Germans inflicted upon civilian internees in their concentration camps, this more humane treatment of prisoners of war may seem somewhat surprising. Several factors were involved. The internees were regarded as inferior people, not as prisoners of war. The Americans were not in the "inferior people" category and, since the Germans knew that many Americans were descendants of good German (Aryan) stock, there may have been some relationship link or identification. Interviews with German prisoners of war revealed that fear of retaliation was also a factor in this better treatment. It is generally accepted that some acts of brutality took place, but not as the policy of the German High Command; however, there is no evidence to show that the perpetrators of such offenses were punished by their superiors.

The Japanese, who were not signers of the Geneva Pact, ignored its rules, and paid token attention to its content only when it suited their fancy or for the purposes of propaganda and international politics. Because of Japanese culture, prisoners of war were looked upon with scorn, and thus, some Japanese unleashed their pent-up individual and national hostilities upon the Occidental. In all due justice, it must be noted that some Japanese

[1] Cohen, Bernard M., and Cooper, Maurice Z.: A Follow-up Study of World War II Prisoners of War. (A National Research Council and Veterans' Administration Study.) Washington: U.S. Government Printing Office, 21 Sept. 1954, p. 54.

[2] It is difficult to separate the psychiatric aspects of the prisoner-of-war experience from the totality of the experience. This chapter is presented mainly as a contrast between the American POW's held by the Germans and Italians and those held by the Japanese. Thus, some of the material is a repetition of that in chapter XXVI, but this again serves to contrast the experience.—A. J. G.

guards exhibited compassion for the plight of American prisoners and assisted them to some extent.[3]

TREATMENT AT TIME OF CAPTURE

As reported by Gruenberg [4] and McKee,[5] American medical officers who had been prisoners of war in the European theater, it seemed that the captors did not have detailed instructions as to how prisoners should be treated at the time of their capture. In some instances, prisoners were stripped of all their personal belongings, including personal papers, fountain pens, watches, food, medication, and excess clothing, and from some medical personnel, their Geneva Convention identification cards; whereas other prisoners were permitted to retain all their possessions, and only weapons were confiscated. Most prisoners were subjected to interrogation of some kind. This also varied considerably, depending upon such factors as rank, organization, location, time of capture, and battle situation. Some violations of the Geneva Pact in the taking and treatment of prisoners were deliberate. McKee stated that four ambulances under his supervision, loaded with about 15 patients and clearly identified with the standard Red Cross marking, were shelled by Germans before capture. Although one vehicle was disabled, the patients and drivers were able to gain cover so that no casualties resulted from the attack.

EVACUATION OF PRISONERS OF WAR

Prisoners of war taken by the Germans were usually placed in a chain of evacuation immediately after capture, although some had to remain at concentration or collecting points near the front for as long as 24 hours without provisions for food or water. This delay often subjected such prisoners to artillery and even small arms fire from their own forces or allies. Many of those captured in North Africa went through various transient camps in Africa, Italy, and Germany, only to end up in Poland. Some were held in one of the permanent German camps. Others, captured in France, were taken across the border into closer German camps where they remained until liberated. In most instances, however, as the Allies advanced, rearward evacuation was necessary so that, in some phases of this fast-moving war, the frequent relocation of prisoners entailed additional hardships. Such evacuation was often on foot, but trucks and trains were also used. McKee related a harrowing episode:

> At Bolzano, we had an interesting experience. We were locked in boxcars about 100 or 150 yards from the bridge over the Adige River, when some B–17's came looking

[3] Diary of Col. Edward R. Wernitznig, MC.

[4] Recorded interview, Capt. Ernest Gruenberg, MC, in the Office of The Surgeon General, 13 June 1945.

[5] Recorded interview, Capt. Wilbur E. McKee, MC, in the Office of The Surgeon General, 15 June 1945.

for that bridge. We had a rather exciting hour and a half. We were all in boxcars when the first wave came over. By the time the second and third waves came over, we had managed to get out of the boxcars and into air-raid shelters, but during the first bombing we were unable to get out. [Then] I recall that I was in a second-class coach that was being used as a sick bay. There were six or seven patients in there. One of them was a fellow with a broken collarbone. When the first wave came over and we all hit the floor, this patient was on the bottom, broken collarbone and all!

No one was hurt, fortunately. By the time of the next bombing, we had all managed to get out of the cars and into ditches or some type of air-raid shelters. Some of the men suffered sprained ankles, however, from jumping in and out of the boxcars and from stumbling and pushing each other.

As a rule, the seriously wounded prisoners were evacuated rearward first, with the less severely wounded and others following later. This segregation of the more seriously wounded was the first of a number of sortings which continued along the evacuation chain in transient camps as well as later in the more permanent camps that began to fill up. McKee summed up the sorting procedure, briefly, as follows:

We arrived at Moosberg, Germany, on 5 October 1943. This was a transient camp. All types of prisoners were in this camp, all nationalities, and all ranks, grades, and services. From there the prisoners were allocated to the various types of camps in Germany; the Africans went to one, the British to another, American ground troops to another and American Air Force personnel to another. They were still further segregated into officers' camps and camps for enlisted men and noncoms. For example, American Air Force enlisted personnel went to Heydekrug, American Ground Force officers to Oflag 64, and Ground Force enlisted men to Stalag 2B. All were routed through Stalag 7A at Moosberg.

Although the Germans attempted to separate leaders from followers, they never succeeded.

DIFFERENCES IN PRISON CAMPS

German POW (prisoner-of-war) camps varied in size, facilities, types of food served, treatment, restrictions, permanency, and purpose. An "oflag" was a POW camp for officers; a "stalag" was a permanent POW camp; and a "luft," a POW camp for air force personnel. A "dulagluft" was an air force interrogation point.

The size of camps in the evacuation chain varied, depending upon the number of prisoners that were captured at a particular time. The more permanent camps in the rear and remote areas, which were built up as prisoners arrived, varied from a few hundred to thousands. One camp, PG 21, an oflag in Chieti, Italy, had between 1,200 and 1,600 officers, and 150 to 200 enlisted men on orderly duty; another, Camp 2B at Hammerstein, in eastern Pomerania, had more than 8,000 prisoners in January 1945; Luft 4 contained about 2,400 airmen;[6] and a transient camp, No.

[6] Recorded interview, McKee, pp. 5 and 9.

12A, at Chalons, France, had as many as 3,000 or 4,000 prisoners at various times.[7]

The facilities in transient camps were, in many respects, poorer and less adequate than those in the more permanent camps. Overcrowding of sleeping areas in tents or barracks and of the space allotted on various vehicles of transportation was common. Blackouts from 1600 to 0800 hours, with the sealing of windows, impaired ventilation in crowded barracks.

Heating these barracks was a general problem because of insufficient heating equipment and an overall shortage of fuel. Coal was doled out a few lumps at a time—ridiculous quantity to heat a huge barracksroom for an entire night. The number of latrines per prison population was always insufficient and when large numbers of prisoners were gathered in a camp, the latrines frequently passed their normal capacities and overflowed. This attracted swarms of flies to further harass the prisoners.

Water for drinking and bathing was always limited and of doubtful potability in most of these camps, especially in Italy. Food varied in quantity and quality, usually meager in quantity and questionable in quality. McKee reported that the Italians continued to offer spaghetti, macaroni, and rice to dysentery patients, despite the symptoms and inability of these patients to tolerate such a diet.

The Germans seemed, at times, to be more resourceful, for they raided the countryside for fresh fruits, vegetables, and other local foodstuffs. Red Cross packages, American and British, eventually arrived with sufficient regularity to forestall starvation or at least severe malnutrition, which otherwise might have been common. McKee and others reported incidences in which Germans ransacked Red Cross packages of items they particularly wanted. At times, they issued cans of meat from such packages in the late evening and ordered that the empty tins be gathered and counted by 1000 hours the next morning. The necessity of gulping down this amount of a single food item in a limited period of time resulted in many gastric upsets and indigestion.

Clothing was not always adequate even though the Germans had quantities of clothing and blankets supplied by the Red Cross. When they did issue any, a painstaking inspection took place. Instead of checking a few items in a bale, they inspected every single item, including such small things as socks and handkerchiefs. When Luft 4 was liberated, 2,000 perfectly good blankets, which the Germans never saw fit to issue, were left behind.

Fortunately, the incidence of illness among Americans in European POW camps was relatively low. Medical supplies were scant most of the time. Some interned medical officers were, by devious means, able to get communications through to various Red Cross headquarters and request medical supplies. At times, some medical supplies did arrive, but not always

[7] Recorded interview, Gruenberg, pp. 4–5.

what had been requested. McKee stated that he received many first aid packets which were very limited as far as usability in his situation, and that 85 percent of the content was wasted because it was not needed. However, when an adequate supply of Atabrine (quinacrine hydrochloride) finally arrived, malaria cases received continued treatment. The prisoners from Italy had considerable malaria, and the situation was brought under control and treatment for this disease became much more effective. Some medical officers were able to secrete certain scarce drug items, such as morphine, quinine, and sulfonamide drugs, which were sorely needed and otherwise unavailable.

Of the epidemic diseases, diphtheria caused the most difficulty. Apparently, it was carried into the European prison camps from North Africa. Owing to the lack of specifics for this disease, it became a problem and, at best, was treated symptomatically. Pneumonia and skin diseases presented problems, and dysentery was endemic most of the time. McKee reported that the number of hernias and cases of appendicitis exceeded the normal expected average. No explanation could be given. The prevalence of skin conditions, such as furunculosis and scabies, was believed to be due to the general lack of hot water and soap. Dietary deficiencies may have contributed. The Germans effectively controlled lice by sending most prisoners through a delouser.

Gruenberg reported that many officers who did not work suffered from chronic diarrhea and frequency of urination (10 to 15 times a night). He attributed it to anxiety, for no organic cause was discovered to account for these conditions. Gruenberg also implied that a "situational anxiety neurosis" developed in all prisoners.

Generally, officer camps had more prisoner medical officers than were actually needed. Many of these American medical officers volunteered for transfer and assignment to enlisted and noncommissioned officer camps to provide better medical care for such troops. These requests were usually granted. The Germans sent the more seriously wounded Americans to their hospitals where German physicians attended them. The standards of German medical care as they were observed were generally high—not as good or as broad as American standards, but adequate. The Italians, however, were reluctant to permit American medical officers to take care of any of their fellow prisoners and thus took over most of the medical care. Italian medical standards were considered unsatisfactory. McKee stated that frequently it was a mixture of "barbarism and sadism," and that they seemed to take delight in "poking and probing," as well as in performing surgical procedures without anesthesia or with a poor excuse for an anesthetic. He also said that no postoperative morphine was given to patients with severe pain.

It is surprising to many that, even though a few prisoners escaped, more did not in view of the lax guarding at various times. When Italy

capitulated on 8 September 1943, the Italian guards at PG 21 ran off, and according to McKee, "there was no one with us for 3 or 4 days, but we mounted our own guard on the walls in order to keep our men from roaming the countryside. One morning we woke up and there were German paratroopers on the walls with their machineguns trained on the camp."

After the Germans took over PG 21, they maintained a casual guard until 22 September, when their trucks moved in and they started to clean out the camp and move the prisoners to Germany. On the way to Germany, having been transferred from the trucks to boxcars, many men escaped from the boxcars. At the camp in Germany, some also escaped for the Germans were lenient at first, and men crawled under the fence in full sight of guards; later, they bore down and turned machineguns upon anyone who even approached the fence. According to Wolff:[8] "About 94,000 U.S.A. prisoners of war were held by the Nazis. Less than 100 escaped and less than one half that number crossed the enemies' borders to return to Allied territory."

In Germany, the information which filtered through to prisoners, that the tide of the war was in favor of the Allies, promised early liberation and made any attempt to escape an unwarranted and probably fatal hazard. For the prisoners of war of the Japanese and, later, of the Chinese Communists in Korea, interned in countries inhabited by Orientals, escape was considered foolhardy because detection and recapture seemed inevitable. Recapture led to almost certain execution, and thus, escape was likened to actual suicide.

SUPPORTS FOR SURVIVAL

Prisoners who were occupied with some kind of work fared better than those who were idle. This was especially true of officers, and since medical officers more often found work to do, if only the holding of sick call, they had fewer disquieting psychological symptoms. In German camps, prisoners solidly supported a senior officer or noncommissioned officer as their leader in active or passive resistance against their captors.[9] Medical officers, because of their presence in enlisted men's camps, were often looked upon as leaders and pillars of support. Such officers were more apt to have some knowledge of their captor's language and were able to act as representatives of the camp. They were frequently able to improve the lot of their fellow prisoners by contact with the authorities. More socialization and group identification existed in these prison camps than was possible in Japanese camps. Also, medical care was much better even though drugs, facilities, and professional instruments were not abundant.

[8] Wolff, H. G.: Every Man Has His Breaking Point—(?) The Conduct of Prisoners of War. Mil. Med. 125: 85–104, February 1960.

[9] Recorded interview, Gruenberg, p. 10.

Bartering seemed to be quite prevalent between European prisoners of war and their captors. A pack of cigarettes was worth about 10 marks in money, but much more could be obtained in barter. At times, prisoners were able to obtain scarce articles that even high-ranking Germans were unable to obtain. The guards, as a rule the only enemy personnel who had contact with the prisoners, were easily corrupted by money or commodities. Even guns and bayonets were offered by guards for trading purposes. These bargaining and trading efforts also tended to minimize physical and psychological discomfort.

PSYCHOLOGICAL REACTIONS AND MORALE

The basic personalities of people differ—some may be called "strong personalities," others "weak personalities"—but it does not seem justified to imply that only the "fittest" survived.

It is no doubt true that some depressed, discouraged individuals lost "the will to live." This giving up was mentioned repeatedly by surviving prisoners from Japan. Yet, it is difficult to say that this was psychological. Only 1 percent of the 94,000 American prisoners of war of the Nazis, who averaged 10.3 months in captivity, died, whereas 35 percent of American prisoners in Japanese hands, with an average of 38.4 months' captivity, died.[10] In the latter figure, one must consider the high number of casualties on the Bataan Death March and those who succumbed on the trip of the *Oryoku Maru* and other prison ships. Physical disease factors and physical deprivation undoubtedly contributed to the high death rate.

Another important point which would require further investigation was brought out by the British,[11] as follows:

> Observation of different groups—recaptured, protected, medical commission repatriates and escapees—suggests that those who find difficulty in adapting to life in stalags may be forced to an unrecognised choice between development of psychiatric symptoms and attempting escape. To say that escapees are the best type of soldier is only true, therefore, with the qualification that in some cases their escape was partly motivated by what were, for them, the extreme emotional difficulties of intimate community life; for this, and other reasons, despite their high personal ideals and capacity, are, on the whole, no less likely than other repatriated prisoners of war—and there is some evidence to show that they may be more likely—to find difficulty in readaptation.

Most soldiers consider the possibility of being killed or wounded, but few give much thought to the possibility of capture. Thus, being taken prisoner was unanticipated, and a shock. Although the military situation at the time of capture (victorious advance, or retreat in defeat) no doubt had a very definite effect on morale and the severity of psychological responses, nearly all soldiers showed a reactive type of depression. They then began, generally, to ruminate over the events that led to their capture and

[10] See footnote 8, p. 982.

[11] Technical Memorandum No. 13, "The Prisoner of War Comes Home." Directorate of Army Psychiatry, London, May 1944, p. 7.

how it might have been avoided. Guilt over this plagued the soldiers, so much so that earlier battle dreams were replaced by dreams of their capture. This guilt over capture abated somewhat in time, only to rear up again in a slightly altered form—reflections on missed opportunities and failure to escape. The first 2 or 3 months of captivity were usually associated with the most emotional turmoil, with feelings of guilt and depression predominating.

A "situational anxiety neurosis" in all prisoners of war is not too difficult to conceive. They were under constant stress of one type or another, besides being deprived of their freedom. Instances of brutality on the part of their captors, even if not witnessed or experienced personally, filtered through to stimulate fear that it might happen to anyone. On the other hand, uncertainty over the duration of imprisonment, distressing as it was, was frequently balanced by reports of Allied victories, by sighting of Allied planes, by establishing dates of anticipated liberation and advancing them into the future when necessary, and even by encouraging rumors. Some rumors were, however, damaging. One, that all captured officers would be court-martialed, spread widely. It was later discovered that this emanated from the British policy of holding a "court of inquiry" on all captured officers. This was done in the British Army to absolve the officer from any charge of dereliction of duty, and clear his name. It was obviously misinterpreted and led to a distressing, widely circulated misconception which may have done some psychological damage.

Much anxiety was generated over scarcity of food, failure of anticipated Red Cross packages to arrive, general lack of comfort items, irregularity or absence of mail, bad news from home when mail did arrive, and many other major and minor irritations that under more normal conditions would have been less anxiety provoking.

As time passed, many soldiers concluded that they would not be welcomed at home, that they had foolishly permitted themselves to be captured, and that they were out of the fight.[12] Other fears developed concerning financial, marital, and professional or job futures, even to the extent of paranoid ideation. Some prisoners worried about the effect that long incarceration and deprivation might have on their physical and mental health.

LIBERATION AND PSYCHOLOGICAL FINDINGS

Most observers of the prisoners repatriated from Japan noticed an initial "superficial feeling of well-being" in these prisoners immediately after their release. Brill called it "the euphoria of relief." [13]

[12] In this regard, Col. Thomas W. Salmon, MC, Senior Consultant in Neuropsychiatry to the American Expeditionary Forces, 1914–18, in his "Notes written in December 1918," had commented, as follows: "* * * the end of exposure to serious physical danger, by capture or by the ending of hostilities, may increase rather than diminish the emotional stress of some soldiers, and probably of many."

[13] Brill, N. Q.: Neuropsychiatric Examination of Military Personnel Recovered From Japanese Prison Camps. Bull. U.S. Army M. Dept. 5: 429–438, April 1946.

From the European theater, McKee stated, "It was amazing to me how mean the Germans were to us in little ways." Walker [14] said, "It is a fact that quite a number of our prisoners have been shot under inexcusable circumstances, and many have been beaten and suffered severe physical injury. Hundreds have undergone the torture of long solitary confinement." Cohen and Cooper [15] showed from their questionnaire survey that 30.8 percent of the prisoners of the Germans had suffered solitary confinement, and slightly less, 26.4 percent, of the prisoners of the Japanese.

Anxiety, evident in all prisoners, seemed to mount as time elapsed after liberation. The increase in anxiety was probably associated with the gradual awareness of the problems, real or imagined, that these recovered prisoners were beginning to face, and anxiety was further manifested by increased restlessness and irritability.

The duration of the time in captivity was another factor influencing adjustment and readjustment. Prisoners themselves believed that, after 18 months to 2 years of captivity, the confinement and monotony of life in the prison camp led to a "prison mentality" or "barbed-wire disease," described by Vischer,[16] in 1919. The uncertainty over the duration of their imprisonment also contributed to the lowering of morale.

CONCLUSIONS

Certain psychological reactions, which appear at some time or other in most prisoners of war, may be summed up as follows:

1. Depression, usually reactive in type, manifested by withdrawal of interest and energy, apathy and dullness.
2. Anxiety, situational, objective and free-floating.
3. Guilt feelings: Over capture; over failure to escape; over certain behavior, such as having talked too much or having failed to assist the wounded or other fellow prisoners.
4. Diversified fears: Of death, torture, starvation, and so forth.
5. Paranoid ideation with its persecution ideas and aggrandizement; having been let down by the military and others; failure to be liberated early; failure to be provided with food, medical supplies, and other items.
6. Regression to early levels of gratification, mostly oral, characterized by the importance of food and other allied needs.
7. Great increase in phantasy life, involving dreams and rumination over home and loved ones.

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[14] Walker, E. R. C.: Impressions of a Repatriated Medical Officer. Lancet 1: 514–515, 15 Apr. 1944.

[15] See footnote 1, p. 977.

[16] Vischer, Adolf Lucas: Barbed Wire Disease: A Psychological Study of the Prisoner of War. London: John Bale, Sons & Danielsson, Ltd., 1919.

Part VII

CONCLUSIONS AND SUMMARY

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CHAPTER XXVIII

Lessons Learned

Colonel Albert J. Glass, MC, USA (Ret.)

The major lessons of World War II military psychiatry were derived from experiences with combat psychiatric casualties. Trial-and-error efforts to deal with these problems eventually produced effective programs of control and treatment. In retrospect, however, the concepts and practices as developed by combat psychiatry in World War II, generally, rediscovered, confirmed, and further elaborated upon the largely forgotten or ignored lessons learned by the Allied armies, including the American Expeditionary Forces, in World War I. Thus, the lessons of World War II combat psychiatry, as set forth in this chapter, should be regarded as relearned and consolidated insights. For this reason, a background of World War I psychiatry is included to delineate more clearly the specific contributions made by psychiatry in World War II.

DIAGNOSES AND MANIFESTATIONS

During World Wars I and II, experiences indicated that the diagnoses which were applied to psychiatric disorders exerted a significant influence upon the manifestations and clinical course of these disorders, as well as upon their reception and treatment. Because this lesson of combat psychiatry is not generally appreciated by present-day (1971) civil or military psychiatry, supporting data are presented herein.

World War I

Only since the early days of World War I [1] has the inability of combat personnel to cope with battle conditions become accepted as a legitimate reason to classify such personnel as casualties of war. In prior times, such failure of adaptation was regarded as cowardice, weakness, or other moral lapse, and was usually dealt with punitively. This attitude persisted even in World War II, as exemplified by the Patton incident (pp. 26–27) and by the opinions and actions of senior line and medical officers (pp. 130–131). In World War I, optimal conditions existed for the recognition of psychiatric casualties, in that troops new to battle were subjected to intense prolonged

[1] In this chapter, reference to World War I is based on material contained in "The Medical Department of the United States Army in the World War. Neuropsychiatry. Washington: U.S. Government Printing Office, 1929, vol. X, pp. 271–523."

combat, associated with heavy concentrations of artillery fire and high battle losses. Also, advances in psychiatry and social sciences during the decade before World War I facilitated awareness that mental disorders could be situationally induced.

Both in World War I and in World War II, failure in the battle role had to be manifested by symptoms or behavior acceptable to the combat reference group as representing an inability rather than an unwillingness to function. Because of this importance of acceptability, the symptoms of psychiatric casualties, beginning in World War I, and, generally, their terminology, have indicated a direct causal relationship with various traumatic conditions of the battle environment, rather than personality weakness or other innate vulnerability to situational stress.

In World War I, psychiatric casualties seemed to be the direct consequence of nearby shell explosion, hence the terminology of "shellshock." In effect, psychiatric casualties were first accepted on the basis of brain injury. By 1915–16, however, the Allied medical services were aware that shellshock was entirely a psychological disorder, and the terminology of "war neuroses" came into common usage by medical personnel. By this time, however, shellshock or war neuroses had achieved the status of a disease and, thus, an inability to function in combat. In contrast, the German Army did not accept shellshock or war neuroses in World War I, or the legitimacy of psychiatric casualties in World War II.

Col. Thomas W. Salmon, MC, chief psychiatrist of the American Expeditionary Forces, and his associates were well aware of the adverse effects of using a definitive diagnosis for the early, fluid manifestations of psychiatric casualties. While shellshock indicated situational origin, it also conveyed the impression of brain damage and its consequences. Similarly, the diagnosis of war neuroses influenced fixation upon incapacitating symptomatology. For these reasons, field medical personnel of the American Expeditionary Forces were directed to use only the designation "N.Y.D. [Not Yet Diagnosed] (Nervous)" for the initial phases of psychiatric casualties; but shellshock was too firmly established to be changed.

Between World Wars I and II

After World War I, the persistent residual syndromes of psychiatric casualties comprised a high proportion of veterans receiving disability compensation. Extensive experiences created a widespread impression that psychiatric casualties originated mainly from individuals who were vulnerable to combat or other situational stress by reason of neurotic predisposition. This vulnerability was deemed the result of faulty personality development and conformed to the then prevailing psychoanalytic concepts of the psychoneuroses. Thus, the war neuroses were encapsulated into civil

psychiatry as a special category of the psychoneuroses and were so generally designated (p. 128).

World War II

Psychiatric casualties appeared in large numbers during the Tunisia Campaign (p. 6)—the initial large-scale combat engagement of the U.S. Army in World War II. The diagnosis commonly used was "psychoneurosis," with its implication of unresolved intrapsychic conflict from which symptoms are unconsciously derived. With such labeling and connotation of psychopathology, psychiatric casualties were not accepted by the combat group as being the result of battle conditions. Rather, they were considered to be weaker or predisposed individuals and, thus, a consequence of failure in induction screening. For psychiatric casualties and others, the unfamiliar term "psychoneurosis" could only be interpreted as "psycho." Perhaps for this reason, many of these early psychiatric casualties were described as exhibiting bizarre and dramatic symptomatology with dissociative and regressive behavior, which reactions were observed hundreds of miles from the battle zone in safe rear hospitals (pp. 147–148).

Occasionally, the World War I designation of shellshock was used in World War II, with the same adverse implications of brain damage. More common was the terminology of "blast concussion," with or without hemorrhage or rupture of the eardrums and with such other symptoms as persistent headache, tension, irritability, and noise sensitivity, similar to those in other psychiatric casualties.

During the Tunisia Campaign in March 1943, the new terminology of "exhaustion" was officially established (pp. 9–10). "Exhaustion" was selected because it best described the appearance of most psychiatric casualties and, indeed, most combat participants at this time. The following description by the sensitive reporter Ernie Pyle is illuminating:[2]

> For four days and nights they have fought hard, eaten little, washed none, and slept hardly at all. Their nights have been violent with attack, fright, butchery, and their days sleepless and miserable with the crash of artillery. The men are walking * * *. Their walk is slow, for they are dead weary, as you can tell even when looking from behind. Every line and sag of their bodies speaks their inhuman exhaustion. On their shoulders and backs they carry heavy steel tripods, machine-gun barrels, leaden boxes and ammunition. Their feet seem to sink into the ground from the overload they are bearing. They don't slouch. It is the terrible deliberation of each step that spells out their appalling tiredness.

World War I was characterized by static trench warfare, with limited movement during which receiving shellfire was the most common experience. Thus, shellshock was an apt description. In contrast, World War II was a war of movement with distant objectives to be achieved, in successive phases, by troops mainly on foot, who fought up and down valleys and

[2] Pyle, Ernie T.: Here Is Your War. New York: Henry Holt & Co., 1943, pp. 247–248.

hills, carrying on their persons much of the needed weapons, ammunition, and other supplies. In this type of warfare, which included physical fatigue and the emotional strain of continued battle, "exhaustion" served as an appropriate terminology.

Exhaustion was readily accepted both by the psychiatric casualties and the combat reference group. Almost all combat personnel could appreciate that anyone could become exhausted by the stress and strain of continual battle. Soon there appeared the widely quoted generalization that "every man has his breaking point."

Again, combat psychiatric casualties became a rational consequence of battle conditions. Also, the new terminology of "exhaustion" strongly communicated that psychiatric casualties were afflicted with temporary situationally induced disorders for which the newly introduced forward brief treatment of World War I was appropriate.

With the acceptance of exhaustion, the more severe and bizarre manifestations of psychiatric casualties occurred mainly from units in their initial intensive combat engagement. Later, with the emergence of sustaining forces within the combat group and the awareness that manifestations of "exhaustion" were recognized as legitimate casualties of war, combat participants did not need to portray "psycho" to communicate inability to function in battle. Thereafter, most exhaustion patients mainly displayed tension, tremor, irritability, and noise sensitivity, and verbalized an inability to "take it anymore" or "stand the shelling," with or without physical fatigue, depending upon the duration of participation in continuous combat. There were few instances of dissociative or regressive behavior even from replacements to combat units, who rapidly absorbed the prevailing values relative to exhaustion from the more experienced members of the group.

In the Pacific, particularly the Southwest Pacific Area, psychotic-type reactions from combat personnel were apparently more common than in the Mediterranean and European theaters (pp. 765–766; also tables 92, 93, and 96, pp. 1015, 1016, and 1020).

Post-World War II

The powerful influence of diagnosis upon the manifestations and clinical course of psychiatric casualties is apparently not generally appreciated by present-day (1971) military psychiatry. This was not the case during the Korean War, only 5 years after World War II, when "exhaustion," changed to "combat exhaustion," almost eliminated the designation of "psychoneurosis" or personality disorder for psychiatric casualties. The frequency of psychiatric casualties during the first year and most intensive combat of the Korean War did not reach even one-half of the high rates of World War II. Thereafter, undoubtedly influenced by the establishment of

rotation, the rate of psychiatric casualties decreased to levels not much above that of neuropsychiatric rates in noncombat areas.[3]

Since World War II and Korea, many psychiatrists have apparently come to believe that "combat exhaustion," now "combat fatigue," is a specific diagnostic category, in which more or less "normal" persons with previously satisfactory military performance have been overwhelmed by the intolerable stress of severe and prolonged combat, accompanied by marked physical fatigue, sleep deprivation, and inadequate food intake.[4] With this version of combat fatigue, it is not surprising that few such cases have been reported from the fighting in Vietnam. Indeed, except for the "old sergeant syndrome," relatively few instances of this type of psychiatric casualty occurred during World War II and the Korean War.

Psychiatrists reporting from rear medical facilities in Vietnam have again found psychiatric evacuees from the combat zone to have psychoneurotic and personality disorders,[5] as did their counterparts in World War II. Then, psychiatrists, as attested in many chapters in this volume, who worked in hospitals before the establishment of forward treatment, were preoccupied with what appeared to be an excessive prevalence of neurotic predisposition in young military personnel. Most psychiatric casualties during this era readily gave considerable history of past and current symptoms and behavioral abnormalities in an effort to convince themselves and others of their inability to tolerate combat conditions. Understandably, at this time, few psychiatric casualties could be returned to combat duty.

Because of these conditions, "exhaustion," the precursor of "combat fatigue," was created to avoid the label of "psychoneurosis," with its implication of internal vulnerability to withstand battle or other stress. In this regard, reports during and after World War II cited the successful combat adjustment of individuals with previous well-defined personality and neurotic disorders.[6] Also, later studies failed to reveal significant correlation between past and current neurotic and behavioral difficulties and later military effectiveness.[7]

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[3] Glass, Albert J.: Observations Upon the Epidemiology of Mental Illness in Troops During Warfare. *In* Symposium on Preventive and Social Psychiatry. 15–17 April 1957. Washington: U.S. Government Printing Office, 1958, p. 186.

[4] Bourne, Peter G. (editor): The Psychology and Physiology of Stress—With Reference to Special Studies of the Viet Nam War. New York and London: Academic Press, 1969, pp. 79 and 229.

[5] *Ibid.*

[6] Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, pp. 740–746.

[7] (1) Egan, J. R., Jackson, L., and Eanes, R. H.: Study of Neuropsychiatric Rejectees. J.A.M.A. 145: 466–469, 17 Feb. 1951. (2) Eanes, R. H.: Standards Used by Selective Service and a Follow-Up on Neuropsychiatric Rejectees in World War II. *In* The Selection of Military Manpower. (A Symposium edited by Leonard Carmichael and Leonard C. Mead.) National Academy of Sciences, National Research Council, Washington, D.C., 1951, pp. 149–156. (3) Fry, C. C.: A Study of the Rejection Causes, Success and Subsequent Performance of Special Groups. *In* The Selection of Military Manpower, *op. cit.*, 1951, pp. 133–138. (4) Brill, N. Q., and Beebe, G. W.: Some Applications of Follow-Up Study to Psychiatric Standards for Mobilization. Am. J. Psychiat. 109: 401–410, December 1952. (5) Glass, A. J., Ryan, F. J., Lubin, A., Ramama, C. V., and Tucker, A. C.: I and II. Psychiatric Prediction and Military Effectiveness. U.S. Armed Forces M.J. 7: 1427–1443, October 1956; 1575–1588, November 1956.

The scant consideration given to underlying personality defects of psychiatric casualties in the later years of World War II and the Korean War may have unwittingly fostered the later impression that combat fatigue only occurred in so-called normal individuals, a belief which was even incorporated in official diagnostic manuals.[8] It is ironic that "exhaustion," which was created to include all psychiatric disorders in the combat zone and thus to avoid early diagnostic labeling, after 20 years has become institutionalized as "classical" combat fatigue.[9] Thus, a myth has been established that genuine psychiatric casualties only include individuals with "healthy" psychic apparatus, who have been temporarily overwhelmed by extraordinary circumstances of trauma and deprivation.

The diagnosis of "psychoneurosis" for noncombat disorders was replaced at the end of World War II by the more general category "immaturity reactions." [10] This change almost eliminated the diagnosis of psychoneurosis for even noncombat mental disorders in the post-World War II years, including the Korean War.

The experiences of military psychiatry, relative to the negative influence of a definitive diagnosis in the early and fluid phase of a mental disorder, have had little effect on the practice of civil psychiatry, despite many studies documenting the issues in this area.[11] It is, therefore, suggested that civil psychiatry would benefit, as did military psychiatry, by avoiding the early use of definitive diagnoses which emphasize the liabilities of individuals and ignore the setting in which failure of adjustment has occurred. In the initial stages of patient contact, it would seem reasonable to provide a general descriptive label and permit later events to determine the need for a more definitive diagnosis.

CAUSATION AND FREQUENCY

With the establishment of "exhaustion" in World War II and the expansion of psychiatric services to combat units, further experiences produced increased understanding into the causation and frequency, or both, of psychiatric casualties, as follows:

1. As with "shellshock" in World War I, it was soon evident that "exhaustion" was mainly a psychological disorder. Psychiatric casualties were practically nonexistent in troops who advanced for days against little enemy opposition, despite severe physical fatigue and lack of sleep. Conversely, psychiatric casualties frequently occurred immediately before or during the early phases of combat when there was little occasion to develop physical fatigue. Yet, it was repeatedly noted that impairment of physio-

[8] Bourne, *op cit.*, p. 79.

[9] *Ibid.*, p. 229.

[10] Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, p. 756.

[11] Ulman, Leonard P.: Institution and Outcome. London: Pergamon Press, 1967, pp. 26–34.

logical capacity by sleep deprivation, physical fatigue, or intercurrent illness, such as diarrhea or malaria, reduced adaptative capability under combat conditions.

2. Experiences of World War II amply confirmed the situational causation of psychiatric casualties, demonstrated in World War I. Except for the Southwest Pacific Area, the psychiatric casualty rate correlated directly with the frequency of battle casualties; that is, rising and falling with the incidence of wounding. For this reason, psychiatric breakdown was most frequent in troops locked in prolonged heavy combat in either offense or defense. Once battle contact with the enemy was broken, with subsequent advance or retreat, psychiatric casualties declined precipitously as did the battle casualty rate. Clearly, the immediate and continued threat of battle danger was the essential element in the etiology of psychiatric breakdown in almost all combat theaters. In the Southwest Pacific Area, continuous exposure to tropical, primitive living conditions seemed to be the major causative influence in producing psychiatric disorders which did not significantly increase during combat periods (table 96, p. 1020).

3. Perhaps the most significant contribution of World War II military psychiatry was recognition of the sustaining influence of the small combat group or particular members thereof, variously termed "group identification," "group cohesiveness," "the buddy system," and "leadership." This was also operative in noncombat situations. Repeated observations indicated that the absence or inadequacy of such sustaining influences or their disruption during combat was mainly responsible for psychiatric breakdown in battle. These group or relationship phenomena explained marked differences in the psychiatric casualty rates of various units who were exposed to a similar intensity of battle stress. The frequency of psychiatric disorders seemed to be more related to the characteristics of the group than to the character traits of the involved individuals. Thus, World War II clearly showed that interpersonal relationships and other social and situational circumstances were at least as important as personality configuration or individual assets and liabilities in the effectiveness of coping behavior.

4. Awareness of the foregoing social and situational determinants facilitated the use of preventive measures to enhance group identification, improve leadership, and generally raise the level of group morale. These new concepts also made understandable the success of the brief forward treatment regimen empirically developed in World War I. The short respite from battle alleviated physiological deficits, and prompt return to the reconstituted unit, which had been disrupted in combat, made it possible for the individual to resume sustaining relationships with others of the battle group.

5. World War II experiences indicated that psychiatric casualties were most frequent and their manifestations most severe in units new to battle, which were committed to their first prolonged major combat action.

Thereafter, both the incidence and severity of psychiatric breakdown were diminished, despite repeated exposure to intense battle and presence of many replacements new to combat. Apparently, the initial severe combat period facilitates the removal of less effective junior and senior combat leaders, promotes necessary interrelationships for group identification, and provides the experience to improve competence in the use of weapons and tactics and in the techniques of individual survival.

Not infrequently, psychiatric screening and removal of vulnerable personnel following the first intensive combat engagement were ascribed as the major reasons for fewer psychiatric casualties during subsequent combat periods (pp. 789–790). These phenomena of decreasing rates of psychiatric casualties as combat units became battle hardened occurred with or without psychiatric screening (ch. III). Indeed, the experienced division psychiatrists doubted the feasibility and efficacy of such screening procedures (p. 792).

6. Many observers noted that psychiatric casualties were mainly derived from the newest and oldest members of a combat unit. A larger incidence of psychiatric casualties always occurred from "new" men, owing to the marked attrition from battle and nonbattle losses which resulted inevitably in a high proportion of replacements in combat units. Psychiatric casualties from the smaller numbers of "old" men, known to have developed the "old sergeant syndrome," were few but represented a high proportion of the decreasing number of combat veterans.

These veterans with previous good or superior combat performance displayed characteristic phobic avoidance manifestations under battle conditions, but few or no symptoms in noncombat areas. They verbalized self-blame and loss of self-esteem for inability to control behavior and serve as combat leaders. Evidently, repeated traumatic episodes made it difficult to continue the benefits of sustaining influence from other group members. Rotation from combat would have prevented the "old sergeant syndrome." Such a policy was urged in World War II but rarely implemented. During the Korean War, the "old sergeant syndrome" was again noted. However, with the establishment of rotation after the first year of the Korean War, the "old sergeant syndrome" was supplanted by the "short timer's" syndrome— [12] an anxious, tense state not uncommon in combat participants during their last several weeks of the stipulated tour of combat duty. The "short timer's" syndrome has also been noted in the Vietnam conflict.[13]

7. Problems arose in determining the frequency of psychiatric casualties owing to difficulties in obtaining valid comparable neuropsychiatric rates of battle units because—

a. Somatic complaints were widespread in military personnel during World War II. Despite increasing acceptance of psychiatric casual-

[12] Glass, *op. cit.*, p. 190.
[13] Bourne, *op. cit.*, p. 41.

ties, bodily symptoms were regarded as more legitimate reasons for failure to cope with combat or other wartime situational stress. As a result, numerous combat personnel were medically evacuated with various ill-defined organic diagnoses based upon somatic symptomatology. Thus, there occurred persistent syndromes of headache, digestive upset, low back pain, painful joints, weakness with palpitation, and the like. Most of these complaints represented the usual physical and emotional discomforts of combat participants, but could be readily interpreted as secondary to a disease process. More frequent were the residual symptoms from old and recent injuries, disease and surgery, such as painful wound scars, upper abdominal discomfort following infectious hepatitis, and fatigability following recovery from malaria.[14]

b. As high neuropsychiatric rates of units became regarded as evidence of low morale or faulty leadership, there arose individual and group needs to utilize the more acceptable organic diagnoses for psychiatric casualties.

For the foregoing reasons, it was recognized in World War II that the formal neuropsychiatric rate did not include all psychiatric casualties (pp. 479–502). Unusual increases in various categories of nonbattle losses could represent covert psychiatric casualties, especially when a low psychiatric incidence was associated with a high frequency of battle casualties. Particularly suspect in this regard was the lightly-injured-in-action rate, composed mainly of sprains, bruises, and contusions. Other psychologically induced battle losses included self-inflicted wounds, and AWOL (absent without leave) from battle, both of which phenomena mainly occurred as a result of battle, but were usually initiated immediately before anticipated return to combat from rear locations.

During World War II, the biweekly divisional psychiatric report, in the Mediterranean theater, regularly recorded for each battalion the incidence of battle casualties, psychiatric casualties, disease, nonbattle injury, and other categories of loss from duty so that an overall picture could be obtained of total noncombat manpower losses.

The location of treatment also influenced the psychiatric rate, which was usually based upon loss of duty by hospitalization for 24 hours or more. As the organization of divisional psychiatric services became more sophisticated, less severe "exhaustion" cases were held at battalion or regimental aid stations and kitchens and other rear combat areas for brief periods of rest, sleep, and food, with prompt return to duty. Rarely were these milder "exhaustion" cases recorded in the neuropsychiatric rate.

In summary, it can be stated that manifestations of psychiatric casualties were of such a varied nature that their identification, and thus accurate psychiatric rates, were difficult to establish. For this reason, one learned

[14] Medical Department, United States Army. Internal Medicine in World War II. Volume III. Infectious Diseases and General Medicine. Washington: U.S. Government Printing Office, 1968, pp. 675–712.

to question low neuropsychiatric rates in World War II unless the circumstances under which psychiatric casualties were diagnosed and treated were taken into consideration.[15] For similar reasons, the reported low neuropsychiatric rates from Vietnam may be questioned until all categories of noncombat losses are stated and the numbers of psychiatric casualties who are treated in nonmedical facilities are known.[16]

TREATMENT

World War I

Location.—Initially during 1914, shellshock casualties from Allied combat troops were evacuated to the rear where they quickly overtaxed existing civil and military psychiatric facilities. The British, at first, used civil public mental institutions. Later, special military neuropsychiatric hospitals and neuropsychiatric units of military general hospitals were established for the treatment of shellshock and other functional nervous disorders. In all of these facilities, which were located in Great Britain, the symptoms of shellshock were refractory to treatment. Most shellshock patients were discharged to civil life; few could be returned to military duty.

The French medical services experienced similar unsatisfactory results with shellshock casualties evacuated to rear treatment installations. For this reason, advanced neuropsychiatric hospitals for the war neuroses were created and located in the rear zone of active military operations. Treatment in these more forward locations gave significantly improved results.

Because increased German submarine warfare impeded shipping in the English Channel, many elements of the British medical services, including special treatment units for the war neuroses, were relocated to France. Again, it became evident that treatment of "shellshock" was more effective in advanced locations.

The better results obtained by forward facilities prompted a further extension of treatment to locations nearer the combat zone, in British casualty clearing stations and similar advanced posts of the French medical services. In 1916, Allied medical services reported that from 66 percent (British) to 91 percent (French) of the war neuroses casualties were returned to combat duty by forward treatment. With further experiences, the Allied medical services showed conclusively that the war neuroses casualties improved more rapidly when treated in permanent hospitals near the front than at the base; better in casualty clearing stations than even at

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[15] Glass, *op. cit.*, pp. 185–197.

[16] (1) Bourne, *op. cit.*, p. 14. (2) Report, "The Mental Health of U.S. Army Troops in Viet Nam Remains Outstanding," Office of The Surgeon General, Department of the Army, Washington, D.C., 12 Mar. 1968.

advanced base hospitals; and better still when encouragement, rest, persuasion, and suggestion could be given in the combat organization itself.

Network of services.—When the United States entered into World War I, Major Salmon, fully aware of the Allied medical experiences, gradually established a network of services for the war neuroses, as follows:

1. Divisional psychiatric facilities which maintained treatment facilities for 3 to 10 days of respite from combat that included rest, sleep, suggestion, reassurance, and other psychotherapeutic measures, under the supervision of the division psychiatrist.

2. Neurological hospitals which received refractory cases from divisional facilities for 2 to 3 weeks of treatment.

3. A psychiatric base hospital in the advanced communication zone which provided prolonged treatment for the most resistant of the war neuroses.

The three-echeloned system became fully operational during the final offensive in the last several months of the war and functioned effectively.

Environment of treatment.—An important aspect of treatment at all levels was noted by Major Salmon and his associates as "an intangible and mysterious therapeutic influence termed 'atmosphere.' " By this was meant the feelings and attitudes of all personnel of the treatment facility relative to providing an urge or incentive for return to duty.

Military psychiatry in World War I established the importance of environment in the therapy of mental disorders, which included location, network of services, and attitudes and behavior of treatment personnel.

World War II

The cited contributions of World War I psychiatry were largely disregarded and forgotten. More than 2 years elapsed in World War II before the concepts and practices of World War I—that locally based treatment, with a brief respite from combat stress, furnished prompt relief for fatigue and other physiological defects—were relearned and reestablished. In World War II, however, the significance of treatment near the site of origin was fully appreciated only when the sustaining influence of the group process and other social relationships was recognized. Proximity of treatment to the combat unit maintained relationships and emotional investment in the core group. Consequently, there existed in psychiatric casualties, under conditions of forward treatment, varying degrees of positive motivation to rejoin the combat group, which was heightened by improvement in physical status by reason of such recuperative measures as rest, sleep, and food.

In addition, treatment in the battle zone was of crucial importance in providing the atmosphere of expectancy for recovery and return to combat duty. Forward, brief simplified treatment clearly communicated to patients, treatment personnel, and the combat reference group that psychiatric

casualties were only temporarily unable to function. Conversely, evacuation of psychiatric casualties to distant medical facilities weakened relationships with the combat group and implied failure in battle for which continuation of a sick role was the only honorable explanation.

Awareness of the importance of the treatment environment was further refined in World War II. It became the principle of "expectancy" in military psychiatry.[17] This principle has been utilized in the establishment of such techniques as milieu therapy, therapeutic community, and patient government, and in similar arrangements in which all elements of the treatment situation are considered pertinent to patient improvement.

PREVENTIVE PSYCHIATRY

Certain concepts and practices of preventive psychiatry were developed which were only irregularly and partially implemented in World War II, but which, nevertheless, constituted important and enduring lessons learned from that conflict.[18]

Development

During the initial 18 months following Pearl Harbor, there was growing awareness that induction screening had failed to prevent a high incidence of hospitalization for mental disorders. Events demonstrated that when hospitalized for psychiatric disorders, remote from the situational deprivations and hazards of troops, a fixation of disabling symptomatology was produced which was refractory to treatment and return to duty. For this reason, psychiatrists, singly and in small groups, requested and received permission to move from hospital assignments to establish treatment facilities near or at troop concentrations, first at training camps in the United States and later in overseas combat theaters.

From experience in more forward treatment locations came increasing recognition of the multiple causation of what were patently externally induced mental disorders. Such causative factors included deprivations and danger, dislocation from family and loved ones, physical fatigue, intercurrent illness, lack of sleep, monotony of food, inadequate training, continued exposure to climatic extremes or to primitive living conditions, absence of sustaining interpersonal or group relationships, improper job assignment, lack of promotion opportunities, and problems at home—"each of these might be as important as personality structure in any given case and in combination frequently more so." [19]

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[17] Artiss, K. L.: Human Behavior Under Stress—From Combat to Social Psychiatry. Mil. Med. 128: 1011–1015, October 1963.

[18] Appel, John W.: Preventive Psychiatry. *In* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966.

[19] *Ibid.*, p. 396.

Command Consultation

It became evident that, if psychiatric disorders were to be prevented, control or modification of one or more of the social and environmental determinants of mental disorder would be necessary, all of which were the responsibilities of command. Consequently, psychiatrists in World War II endeavored to assume staff advisory functions to commanders at various levels. Later, this role in preventive psychiatry was officially recognized.[20]

Further experiences revealed that the effectiveness of the psychiatrist in prevention was equated with the quality of relationships that he established with commanders and other supervisory personnel, which was usually based upon the management of referred psychiatric problems. Unrealistic recommendations and psychiatric reports replete with professional jargon produced a negative impression. Conversely, demonstrated effectiveness in treatment and appropriate decisions for the disposition of individual cases created a favorable climate for command consultation.

For an effective role in preventive psychiatry, the psychiatrist needs firsthand knowledge of how soldiers live, work, and fight. Psychiatrists in World War II achieved such military sophistication by assignment or by visits to training, combat, or other unit activities, usually in connection with case referrals. An invaluable tool for preventive psychiatry in World War II, particularly in combat operations, was the utilization of an epidemiological approach. With this technique, the psychiatrist could indicate significant differences in the frequency of mental disorders from combat units that endured a similar intensity and duration of danger and hardship.

In the staff advisory role, many psychiatrists used their influence to achieve a more effective assignment of marginal or limited-service personnel, including combat veterans with the "old sergeant syndrome." In addition, psychiatrists submitted pertinent recommendations which assisted commanders in the control of stragglers, self-inflicted wounds, and "AWOL's" from combat, and in the identification of morale problems of particular units.

Perhaps the major contribution of preventive psychiatry in World War II involved the orientation of junior and senior commanders in understanding the multiple causation of mental disorders, including the sustaining influence of group cohesiveness and leadership. Much of this effort was accomplished by formal and informal discussions with officer and noncommissioned officer groups, as well as by the management of individual cases.

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[20] *Ibid.*, pp. 400, 401, and 408.

Rotation

The best known lesson of preventive psychiatry in World War II revolved about the establishment of a prescribed, or stated length of, overseas assignment for both combat and noncombat personnel. A growing and insistent demand for rotation was the result of increasing awareness by psychiatrists and others that continued deprivation, hardship, and danger could and did produce mental breakdown or other manifestations of noneffective behavior in most military personnel.

Rotation of mainly combat personnel from overseas theaters to the Zone of Interior was practiced only late in World War II, and to a limited extent. This lesson of World War II, however, gained increasing recognition following that war. For example, rotation was instituted after the first year of the Korean War in which a definite tour of duty in Korea was established for combat and combat-support personnel. With rotation in the Korean War, the incidence of psychiatric disorders decreased.[21] It must be conceded, however, that the intensity of combat decreased considerably after the initial year of the Korean War.

In the Vietnam conflict, a duty tour of 12 months was established at the outset of large-scale combat by U.S. forces, and was maintained. In Vietnam, the apparent marked reduction of psychiatric casualties over that of World War II and the Korean War has been ascribed in large part to this rotation policy. However, other differences from that of previous wars have also been credited for the small frequency of psychiatric casualties, including the episodic nature and the lesser intensity of combat in Vietnam.[22]

SITUATIONAL STRESS AND PSYCHIATRIC DISORDERS

Throughout this volume, considerable emphasis has been placed upon the correlation of the nature, intensity, and duration of situational stress, with the frequency and type of psychiatric breakdown. Indeed, widespread awareness of this causative relationship may be considered the most important contribution of psychiatry in World War II. Most writings on this subject consist of anecdotal reports or other firsthand observations which illustrate the deleterious effects of continued deprivation and danger in producing manifestations of noneffective behavior or psychiatric casualties. In some instances, statistical information was furnished to substantiate the adverse influence of situational stress.

The objective of this section, utilizing the latest available official statistical data, is to review the evidence for the relationship between situational stress—battle wounds, diseases, and nonbattle injuries—and the several types of recorded neuropsychiatric disorders.

[21] Glass, *op. cit.*, p. 186.

[22] Bourne, *op. cit.*, pp. xxv–xxvi and 15.

Initially, the frequency [23] of battle casualties, diseases, nonbattle injuries, and neuropsychiatric conditions will be examined from a worldwide standpoint to determine if any overall conclusions can be stated relative to the adverse effects of situational stress. Later, each major overseas theater of operations will be separately considered for the impact of more specific combat or noncombat stress conditions.

U. S. Army, Worldwide, 1942–45

Statistical data pertinent to the U.S. Army, worldwide, for the 1942–45 period, are shown in tables 85 through 91. It should be noted that admissions, as shown in all tables, refer to placement in a medical facility for 24 hours or more, except in a few instances in which patients were treated on an outpatient basis and were individually recorded for administrative purposes of assignment or personnel action. Thus, most outpatient treatment or evaluation visits are not included in the statistical data presented here.

Neuropsychiatric conditions, worldwide.—The incidence [24] of total neuropsychiatric conditions (neurological and psychiatric disorders) for the war years is shown in table 85. Neurological disorders were fairly constant throughout the war years, except for a peak in 1943, corresponding with a rise in the disease rate (table 89).

Of the psychiatric diseases, psychoses, normally of relatively small frequency, had a signficantly high rate in 1942, the first full year of the war, then decreased and remained fairly constant for the remaining war years. Experiences before, during, and after World War II have demonstrated that about 50 percent of psychoses are evident clinically in the initial year of military service, with approximately 25 percent in the succeeding 2 years.[25] In other words, there is a higher incidence of psychoses in newly inducted troops than from personnel with one or more years of military service. As the number of newly inducted personnel markedly increased during 1942, with the major expansion of the Army after Pearl Harbor, the rate of psychosis rose in the continental United States where most new troops were being trained for overseas deployment (table 86).

Psychoneurosis, the largest category of the psychiatric disorders, showed the greatest sensitivity to situational stress. In World War II, psychoneuroses included a wide variety of symptoms and syndromes, all reflecting an inability to cope with wartime stress and strain. During the mobilization years of 1942–43, stress circumstances involved dislocation from home, regimentation, lack of privacy, rigors of training, and problems of integration into new groups. During 1943 and 1944, troops moved overseas to mainly combat theaters. The year of the most intense combat was

[23] As used throughout this section, the term "frequency" refers to primary admissions only.

[24] As used throughout this section, the term "incidence" refers to primary admissions only.

[25] Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, p. 14.

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TABLE 85.—*Admissions for neuropsychiatric conditions, by diagnosis and year, U.S. Army, worldwide, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	174,422	6.9	22,459	6.9	57,178	8.3	50,545	6.5	44,240	6.0
Psychiatric disorders: [3]										
Psychosis	67,642	2.7	11,310	3.5	17,527	2.6	21,900	2.8	16,905	2.3
Psychoneurosis	648,500	25.6	53,933	16.7	199,162	28.9	232,335	29.9	163,070	22.0
Character and behavior disorders	118,994	4.7	15,705	4.8	35,059	5.1	36,070	4.6	32,160	4.3
Disorders of intelligence	28,871	1.1	4,083	1.3	14,113	2.1	7,360	.9	3,315	.4
Other	64,638	2.6	6,565	2.0	18,048	2.6	19,605	2.5	20,420	2.7
Total psychiatric disorders	928,645	36.7	91,596	[4] 28.3	283,909	41.3	317,270	40.7	235,870	31.7
Total neuropsychiatric disorders	1,103,067	43.5	114,055	35.2	341,087	49.6	367,815	47.2	280,110	37.7

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, table 6, p. 216.

[4] This figure appears erroneously as 26.3 *in* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, table 6, p. 216.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 86.—*Admissions for neuropsychiatric conditions, by diagnosis and year, U.S. Army, continental United States, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	107,242	7.2	18,577	7.0	42,740	8.2	26,430	6.7	19,495	6.5
Psychiatric disorders: [3]										
Psychosis	37,824	2.5	9,659	3.6	12,345	2.4	9,775	2.5	6,045	2.0
Psychoneurosis	390,609	26.4	47,374	17.8	156,155	30.1	[4] 115,285	28.9	71,795	24.1
Character and behavior disorders	81,984	5.6	13,494	5.1	28,340	5.4	23,045	5.7	17,105	5.6
Disorders of intelligence	24,357	1.6	3,812	1.4	12,940	2.5	5,360	1.3	2,245	.8
Other	36,716	2.5	[5] 5,681	2.1	18,400	2.6	8,420	2.1	9,215	3.1
Total psychiatric disorders	571,490	38.7	80,020	30.1	223,180	43.1	161,885	40.7	106,405	35.7
Total neuropsychiatric disorders	678,732	45.8	98,597	37.1	265,920	51.3	188,315	47.4	125,900	42.2

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, table 6, p. 216.

[4] This figure appears erroneously as 155,285 *in* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 14, p. 259.

[5] This figure appears erroneously as 5,618 *in* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, table 14, p. 259.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 87.—*Admissions for neuropsychiatric conditions, by diagnosis and year, U.S. Army, outside continental United States, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	67,180	6.4	3,882	6.6	14,438	8.5	24,115	6.3	24,745	5.5
Psychiatric disorders: [3]										
Psychosis	29,818	2.8	1,651	2.8	5,182	3.1	12,125	3.2	10,860	2.4
Psychoneurosis	257,891	24.5	6,559	11.2	43,007	25.4	117,050	30.7	91,275	20.6
Character and behavior disorders	37,010	3.5	2,211	3.8	6,719	4.0	13,025	3.4	15,055	3.4
Disorders of intelligence	4,514	.4	271	.5	1,173	.7	2,000	.5	1,070	.2
Other	27,922	2.6	884	1.5	4,648	2.8	11,185	2.9	11,205	2.5
Total psychiatric disorders	357,155	33.8	11,576	19.8	60,729	36.0	155,385	40.7	129,465	29.1
Total neuropsychiatric disorders	424,335	40.2	15,458	26.4	75,167	44.5	179,500	47.0	154,210	34.6

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army, Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, table 6, p. 216.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 88.—*Admissions for battle injuries and wounds, by theater or area and year, U.S. Army, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Theater or area	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Continental United States	0		0		0		0		0	
Overseas:										
Europe	476,041	113.3	190	2.3	2,154	8.1	290,362	173.1	183,335	84.3
Mediterranean [2]	130,869	85.5	1,350	58.9	36,011	78.8	79,131	121.8	14,377	35.8
Middle East	384	2.9	49	8.1	298	5.6	25	.5	12	.4
China-Burma-India	3,286	7.3	20	2.3	238	6.0	2,146	12.7	882	3.8
Southwest Pacific	71,951	45.4	1,925	27.0	1,998	10.5	20,124	37.3	47,904	61.0
Pacific Ocean Area	38,643	26.8	962	6.4	4,813	16.5	9,594	21.9	23,274	41.6
North America [3]	1,539	3.1	68	.7	1,446	7.4	21	.2	4	.1
Latin America	37	.1	1	[4] .0	6	.1	9	.1	21	.3
Total overseas [5]	723,560	68.6	4,606	7.9	47,435	28.1	401,603	105.2	269,916	60.6
Total Army	723,560	28.6	4,606	1.4	47,435	6.9	401,603	51.6	269,916	36.3

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] Includes North Africa.

[3] Includes Alaska and Iceland.

[4] Rate is more than zero, but less than 0.05.

[5] Includes admissions on transports; *see also* table 100, p. 1026.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 89.—*Admissions for diseases, by theater or area and year, U.S. Army, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Theater or area	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Continental United States	8,848,443	598.2	1,778,733	669.5	3,505,170	676.3	2,136,785	538.0	1,427,755	478.9
Overseas:										
Europe	1,950,812	464.3	47,863	576.6	196,154	735.2	679,295	405.0	1,027,500	472.5
Mediterranean [2]	1,104,999	721.7	12,241	533.9	391,693	857.6	483,510	744.4	217,555	541.3
Middle East	122,058	917.3	7,127	1,178.8	58,851	1,109.5	40,710	880.8	15,370	553.9
China-Burma-India	345,987	773.3	8,240	942.2	45,347	1,144.6	153,830	911.8	138,570	601.6
Southwest Pacific	1,279,720	806.9	55,817	783.7	182,328	960.1	407,995	756.6	633,580	806.5
Pacific Ocean Area	753,081	522.9	72,478	480.1	229,243	786.3	227,910	519.5	223,450	399.6
North America [3]	241,638	491.5	61,607	612.3	98,781	507.9	57,290	443.3	23,960	356.1
Latin America	236,684	622.5	78,868	773.8	75,186	622.2	45,925	535.3	36,705	512.2
Total overseas [4]	6,149,926	583.3	355,293	606.6	1,298,403	769.2	2,128,020	557.2	2,368,210	532.1
Total Army	14,998,369	592.0	2,134,026	658.1	4,803,573	699.1	4,264,805	547.4	3,795,965	510.8

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] Includes North Africa.

[3] Includes Alaska and Iceland.

[4] Includes admissions on transports; *see also* table 100, p. 1026.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 90.—*Admissions for nonbattle injuries and wounds, by theater or area and year, U.S. Army, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Theater or area	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Continental United States	969,237	65.5	212,632	80.0	375,600	72.5	248,645	62.6	132,360	44.4
Overseas:										
Europe	355,922	84.7	6,833	82.3	22,829	85.6	138,460	82.6	187,800	86.4
Mediterranean [2]	162,701	106.3	2,198	95.9	59,808	131.0	71,290	109.8	29,405	73.2
Middle East	15,014	112.8	909	150.4	7,825	147.5	4,460	96.5	1,820	65.6
China-Burma-India	37,651	84.2	854	97.6	4,332	109.3	14,225	84.3	18,240	79.2
Southwest Pacific	173,674	109.5	10,998	154.4	29,601	155.9	61,365	113.8	71,710	91.3
Pacific Ocean Area	129,830	90.1	14,790	98.0	32,045	109.9	42,775	97.5	40,220	71.9
North America [3]	58,032	118.0	13,687	136.0	25,700	132.2	13,260	102.6	5,385	80.0
Latin America	34,199	89.9	11,460	112.4	12,294	101.7	6,445	75.1	4,000	55.8
Total overseas [4]	973,475	92.3	62,707	107.1	195,728	116.0	354,150	92.7	360,890	81.1
Total Army	1,942,712	76.7	275,339	84.9	571,328	83.2	602,795	77.4	493,250	66.4

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] Includes North Africa.

[3] Includes Alaska and Iceland.

[4] Includes admissions on transports; *see also* table 100, p. 1026.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 91.—*Admissions for diseases and nonbattle injuries, by theater or area and year, U.S. Army, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Theater or area	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Continental United States	9,817,680	663.7	1,991,365	749.5	3,880,770	748.8	2,385,430	600.6	1,560,115	523.3
Overseas:										
Europe	2,306,734	549.0	54,696	658.9	218,983	820.8	817,755	487.6	1,215,300	558.8
Mediterranean [2]	1,267,700	828.0	14,439	629.8	451,501	988.6	554,800	854.1	246,960	614.5
Middle East	137,072	1,030.2	8,036	1,329.1	66,676	1,257.0	45,170	977.4	17,190	619.4
China-Burma-India	383,638	857.4	9,094	1,039.8	49,679	1,254.0	168,055	996.1	156,810	680.8
Southwest Pacific	1,453,394	916.4	66,815	938.1	211,929	1,115.9	469,360	870.4	705,290	897.8
Pacific Ocean Area	882,911	613.0	87,268	578.1	261,288	896.2	270,685	617.0	263,670	471.6
North America [3]	299,670	609.6	75,294	748.3	124,481	640.1	70,550	545.9	29,345	436.1
Latin America	270,883	712.4	90,328	886.2	87,480	724.0	52,370	610.4	40,705	568.0
Total overseas [4]	7,123,401	675.6	418,000	713.6	1,494,131	885.2	2,482,170	649.2	2,729,100	613.2
Total Army	16,941,081	668.6	2,409,365	743.0	5,374,901	782.3	4,867,600	624.8	4,289,215	577.1

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] Includes North Africa.

[3] Includes Alaska and Iceland.

[4] Includes admissions on transports; *see also* table 100, p. 1026.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

1944, when psychoneurosis reached its peak of occurrence (232,335 admissions, table 85). Its rate in 1944, however, was only slightly above 1943, despite the markedly increased battle casualty rate (table 88). In at least some theaters (Mediterranean and Pacific), adaptation to battle conditions occurred as troops became "combat hardened" in 1943. Also important were the initiation and implementation of better management and control of psychiatric casualties in 1943. These changes could well have played a significant role in preventing the higher incidence of psychiatric casualties that could have been expected to occur from the more intense combat of 1944.

Also included in the psychiatric disorder category were character and behavior disorders and defects of intelligence. These were few and relatively constant during the war years.

Neuropsychiatric conditions, continental United States.—Table 86 shows the frequency of psychiatric disorders in the continental United States during the war years. As previously noted, the admission rate for psychoses was highest in 1942, the initial year of military service for most World War II participants, which was usually accomplished in the continental United States. Psychoneuroses were most frequent in 1943, the peak year for training and readiness for overseas duty. With the high incidence of psychoneuroses came widespread awareness of their high discharge rates. Subsequent efforts to control hospitalization for psychoneurosis may have accounted for its somewhat decreased frequency in 1944.[26]

Neuropsychiatric conditions, overseas theaters.—The incidence of psychiatric disorders outside the continental United States is shown in table 87. Here can be clearly seen the effects of overseas stress, including combat, in evoking psychiatric disorders, particularly the psychoneuroses.

In 1942, with little combat and with personnel who had successfully completed the transition from civil to military life, psychiatric disorders were appreciably less frequent in overseas assignments than in the United States. In 1943–44, however, the hazards and hardships of combat conditions produced a high incidence of psychoneurosis. Even the rate of psychosis, usually unresponsive to situational stress, showed a slight but significant increase due to the worsened environmental conditions of 1943–44, although the worldwide figures decreased (table 85).

As shown, the admissions for neurological disorders followed the pattern of disease rates rather than that of the psychiatric conditions.

Battle injuries and wounds, worldwide.—The frequency of battle casualties, the most definitive measure of situational stress, for the war years, is shown in table 88. From these data, it is clear that 1944 was the most intense combat year.

Diseases, worldwide.—The disease rates, which represented by far the

[26] Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, pp. 386–401 and 751–756.

most common cause for hospitalization and loss from duty status in World War II, are shown in table 89. The huge disease rate, while less than that of previous wars, demonstrates conclusively that attrition during warfare from nonbattle causes is much greater than from battle causes. The high incidence of disease in military personnel in wartime can be considered the consequence of situational stress and strain similar to battle casualties and psychiatric disorders. In effect, disease represents a breakdown of adaptation to, among others, viscissitudes of climate, hardships of training, unfavorable living conditions, and exposure to infection.

Experiences in World War II clearly indicated that a considerable but unknown proportion of bodily symptoms or syndromes represented psychosomatic conditions in which the sick role was incorporated as an acceptable, legitimate reason for inability to cope with wartime conditions. Such functional or psychosomatic disorders were difficult to separate from those diseases which had little or no psychogenic components. Almost all medical officers in World War II dealt with large numbers of these symptomatic problems.[27]

Concealed in the high disease rates was a significant incidence of psychiatric disorders, chiefly psychosomatic reactions. The rate of psychoneurosis, therefore, was due mainly to overt mental disorders, manifesting psychiatric symptomatology.

The rate of disease, both in the United States and overseas, increased in 1943, similar to the increased rate of psychoneurosis. The highest disease rates were encountered in tropical theaters, owing to exposure to unusual infectious diseases.

Beginning in 1943, the efforts of medical officers to prevent hospitalization for minor illness and for subjective complaints paralleled those of psychiatrists to prevent hospitalization for mental disorders. To circumvent "gain in illness," increased use was made of outpatient treatment services. Also, reconditioning programs were instituted in all general hospitals to avoid the sequelae of disease and injury.[28] In addition, there was improved control of malaria and other infectious diseases; thus the disease rate declined appreciably in 1944–45 (table 89).

Nonbattle injuries, worldwide.—The frequency of nonbattle injuries is shown in table 90. Included in this category are bruises, sprains, contusions, minor fractures, and small numbers of more severe major injuries; also the results of cold injury (frostbite, immersion syndromes), heat exhaustion, and other conditions resulting from hot and humid climates.

Nonbattle injuries increased during 1943, in most overseas areas. Similar to diseases, nonbattle injuries and their residual symptoms and

[27] See footnote 14, p. 997.

[28] Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, pp. 687–694.

sequelae were frequently incorporated into an illness adaptation to wartime stress. It is noteworthy that in 1944, the year of most intense combat and the peak period of combat-incurred injuries, admissions for all noncombat causes, worldwide, declined substantially. In 1944, however, as with disease, better control of heat and cold injuries had been established, as had been outpatient treatment, rather than hospitalization, for minor injuries.

Diseases and nonbattle injuries, worldwide.—Table 91 contains the combined data of tables 89 and 90 to portray the magnitude of total admissions to medical facilities for all nonbattle causes. Experiences of World War II, as shown, clearly indicated that a considerable incidence of covert psychiatric disorders, mainly psychoneurosis, had been hidden in these high disease and injury rates. For this reason, the issue of high or low neuropsychiatric rates may have little relevance. Indeed, in the military forces of some nations, certainly those of Germany in World War II, the diagnosis of psychiatric disorders was banned, and such disorders were not regarded as legitimate reasons for concern or treatment. Under these circumstances, psychiatric conditions, particularly those which have been designated as psychoneuroses in the U.S. Army during World War II, could be included as manifestations of disease and injury and, in some instances, considered to be disciplinary problems.[29]

The acceptance of psychoneurosis as a legitimate reason for casualties of war is of relatively recent origin (World War I) and has been adopted mainly by the Western countries. Further, since neuropsychiatric conditions still carry a certain onus or stigma, the comparison of neuropsychiatric rates in different theaters of the same war, with the rates of armed forces of nations other than the United States, and with the rates of previous wars, is fraught with uncertainty and a high probability of inaccurate conclusions. The relatively small incidence of neuropsychiatric disorders can readily be hidden or absorbed in the much higher disease and injury rates, as well as in such deviant behavior categories, regarded as disciplinary problems, as absent without leave, or desertion, or even drug addiction. Moreover, the procedures for the management and treatment of psychiatric disorders can markedly alter the recorded neuropsychiatric rate. When psychiatric cases are handled on an outpatient basis or in nonmedical facilities, and thus not held in a medical facility for more than 24 hours, the resultant neuropsychiatric disorders rate must, perforce, be lowered. Thus, unless the circumstances under which disease and injury are reported and the procedures for the accomplishment of psychiatric treatment are known or recorded, the validity of reported neuropsychiatric rates must be questioned. This is a significant lesson of World War II military psychiatry.

[29] For example, the ROK (Republic of Korea) troops in the Korean War (Glass, *op. cit.*, p. 196) and the South Vietnamese forces (Bourne, *op. cit.*, p. 62) have reported relatively low rates.—A. J. G.

Overseas Theaters

European theater.—Statistical data (table 92) reveal most clearly the effect of combat stress in the causation of psychiatric casualties. For personnel in the European theater, living conditions and climate were both favorable. When not in combat, troops had access to recreational and diversional activities. Thus, combat, in long or short episodes, was the principal stressor agent in this theater. Psychiatric casualties occurred mainly in combat troops, with a few cases originating from support or rear-echelon personnel. Since combat began only in June 1944, the duration or repeated exposure to combat was not so important a factor in the causation of psychiatric casualties as in other theaters of operations.

The marked increase of psychoneurotic disorders in 1944 (table 92) corresponded to the high incidence of battle casualties. It should be noted that the rate of psychosis in 1944 was unaffected by battle stress; also, that the rate of disease, neurological disorders, and nonbattle injuries was considerably decreased in 1944. It is evident that situational stress other than episodic combat must be present to produce increased rates of psychosis, disease, and injury.

Mediterranean theater.—In the Mediterranean theater, situational stress elements, other than episodes of combat, were operative (table 93). Perhaps most pertinent in this respect was the overall duration of participation in combat, which had a cumulative deleterious effect upon combat personnel. Combat began in November 1942 and continued with few interruptions in intensity for the remainder of the war years. The "old sergeant syndrome," recognized in March 1944, was an example of the cumulative effects of battle stress.

Rotation was practiced too little and too late in the Mediterranean theater. Climatic extremes and primitive living conditions were present during 1942 and 1943. In 1944, situational stress conditions were similar to those in the European theater, except for a considerable decline in combat during 1945.

The increased combat stress of 1944 did not significantly elevate the rate of psychoneurosis. This was probably due to "battle hardening" and to the favorable results obtained from the management and control of psychiatric casualties during 1943–44. The rate of psychosis increased somewhat during 1943–44, thus indicating the presence of factors other than the episodic exposure to combat. Perhaps cumulative combat experiences may have been the cause.

Rates of disease and neurological disorders increased in 1943 but, in comparison to the European theater, decreased only moderately in 1944. This author's experience in the Mediterranean theater was that the cumu-

TABLE 92.—*Admissions for neuropsychiatric conditions, by diagnosis and year, compared with diseases and battle and nonbattle injuries and wounds, U.S. Army, European theater, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	20,557	4.9	659	7.9	1,648	6.2	7,780	4.6	10,470	4.8
Psychiatric disorders: [3]										
Psychosis	8,369	2.0	200	2.4	759	2.8	4,140	2.5	3,270	1.5
Psychoneurosis	111,265	26.5	768	9.2	3,202	12.0	58,790	35.1	48,505	22.3
Character and behavior disorders	13,307	3.2	220	2.7	887	3.3	4,585	2.7	7,615	3.5
Disorders of intelligence	1,837	.4	57	.7	255	1.0	975	.6	550	.3
Other	5,604	1.3	8	.1	356	1.3	3,070	1.8	2,170	1.0
Total psychiatric disorders	140,382	33.4	1,253	15.1	5,459	20.4	71,560	42.7	62,110	28.6
Total neuropsychiatric disorders	160,939	38.3	1,912	23.0	7,107	26.6	79,340	47.3	72,580	33.4
Diseases [4]	1,950,812	464.3	47,863	576.6	196,154	735.2	679,295	405.0	1,027,500	472.5
Battle casualties [5]	476,041	113.3	190	2.3	2,154	8.1	290,362	173.1	183,335	84.3
Nonbattle injuries and wounds [6]	355,922	84.7	6,833	82.3	22,829	85.6	138,460	82.6	187,800	86.4

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, table 6, p. 216.

[4] See also table 89, p. 1008.

[5] See also table 88, p. 1007.

[6] See also table 90, p. 1009.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 93.—*Admissions for neuropsychiatric conditions, by diagnosis and year, compared with diseases and battle and nonbattle injuries and wounds, U.S. Army, Mediterranean theater, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	10,657	7.0	104	4.5	3,768	8.2	4,630	7.1	2,155	5.4
Psychiatric disorders: [3]										
Psychosis	4,285	2.8	43	1.9	1,287	2.8	2,015	3.1	940	2.3
Psychoneurosis	48,677	31.8	153	6.7	16,699	36.5	25,075	38.6	6,750	16.8
Character and behavior disorders	6,027	3.9	35	1.5	2,197	4.8	2,525	3.9	1,270	3.2
Disorders of intelligence	567	.4	0	-------	257	.6	255	.4	55	.1
Other	2,964	1.9	13	0.6	1,381	3.0	885	1.4	685	1.7
Total psychiatric disorders	62,520	40.8	244	10.7	21,821	47.7	30,755	47.4	9,700	24.1
Total neuropsychiatric disorders	73,177	47.8	348	15.2	25,589	56.0	35,385	54.5	11,855	29.5
Diseases [4]	1,104,999	721.7	12,241	533.9	391,693	857.6	483,510	744.4	217,555	541.3
Battle casualties [5]	130,869	85.5	1,350	58.9	36,011	78.8	79,131	121.8	14,377	35.8
Nonbattle injuries and wounds [6]	162,701	106.3	2,198	95.9	59,808	131.0	71,290	109.8	29,405	73.2

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, table 6, p. 216.

[4] See also table 89, p. 1008.

[5] See also table 88, p. 1007.

[6] See also table 90, p. 1009.

Source: Medical Statistical Agency, Office of The Surgeon General, Department of the Army.

lative effects of combat stress were responsible for the continued high disease rate in 1944.[30]

Middle East theater.—The Middle East theater (table 94) had relatively small numbers of personnel, providing mainly logistic and support services. There were relatively few battle casualties. The major situational stress conditions included hot, humid climates, primitive living conditions, monotony of diet, isolation, few recreational opportunities, exposure to tropical diseases, and other deprivations and restrictions. As a result, disease rates were the highest of all theaters, as were also neurological disorders. Nonbattle injuries, probably secondary to climatic stress, were among the highest of all theaters.[31] Under these conditions, psychiatric disorders continued at a fairly high level after the theater became fully established in 1943. It is noteworthy that a small but significant increase occurred in psychoses and behavior disorders.

Data from the Middle East theater demonstrated that the cumulative effects of situational stress factors, other than combat (which include overall environmental deprivations and restrictions), resulted in a high disease and nonbattle-injury rate, in an increased rate of psychosis and character disorders, and in a moderately high rate of psychoneurosis.

China-Burma-India theater.—In the China-Burma-India theater (table 95), the situational stress factors were the tropical and subtropical climates with primitive living conditions, isolation, monotony of diet, and exposure to unusual diseases. Combat stress was relatively small for the theater provided mainly logistic support services, building up bases for the later prosecution of the war. Disease rates, including neurological disorders, were among the highest of all theaters, although the rates of nonbattle injury were only moderately elevated.[32] Psychiatric rates, fairly constant throughout the war years, were moderately high. Rates of psychoses were elevated only in 1945, the last year of the war. It should be noted that the China-Burma-India theater was one of only two theaters to record the occurrence of Atabrine (quinacrine hydrochloride) psychoses.

In effect, the China-Burma-India theater incurred similar, but less severe, noncombat stress as did the Middle East theater; consequently, there occurred a pattern of high disease rates and only a moderately increased frequency of psychiatric disorders.

Southwest Pacific Area.—The Southwest Pacific Area (table 96) was unique in that it had both intense combat stress and severe environmental deprivation and hardship. Combat troops struggled to obtain a foothold in the tropical terrain, captured and held enemy bases in New Guinea and islands to the north, and finally invaded and seized the Philippines. Episodes of prolonged and intense combat, primitive living conditions, hot and humid

[30] Glass, *op. cit.*, p. 187.

[31] The Medical Statistics Agency, OTSG, in its review of this chapter (5 Nov. 1971), pointed out that "where troop strengths are low, rates tend to be inflated."—A. J. G.

[32] See footnote 31.

TABLE 94.—*Admissions for neuropsychiatric conditions, by diagnosis and year, compared with diseases and battle and nonbattle injuries and wounds, U.S. Army, Middle East theater, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]
[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	1,188	8.9	46	7.6	657	12.4	390	8.4	95	3.4
Psychiatric disorders: [3]										
Psychosis	322	2.4	10	1.7	117	2.2	145	3.1	50	1.8
Psychoneurosis	2,354	17.7	50	8.2	1,039	19.6	885	19.2	380	13.8
Character and behavior disorders	839	6.3	20	3.3	354	6.7	350	7.6	115	4.1
Disorders of intelligence	83	.6	1	.2	47	.9	35	.8	0	----
Other	566	4.3	14	2.3	262	4.9	190	4.1	100	3.6
Total psychiatric disorders	4,164	31.3	95	15.7	1,819	34.3	1,605	34.8	645	23.3
Total neuropsychiatric disorders	5,352	40.2	141	23.3	2,476	46.7	1,995	43.2	740	26.7
Diseases [4]	122,058	917.3	7,127	1,178.8	58,851	1,109.5	40,710	880.8	15,370	553.9
Battle casualties [5]	384	2.9	49	8.1	298	5.6	25	.5	12	.4
Nonbattle injuries and wounds [6]	15,014	112.8	909	150.4	7,825	147.5	4,460	96.5	1,820	65.6

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I, Zone of Interior, 1966, table 6, p. 216.

[4] See also table 89, p. 1008.

[5] See also table 88, p. 1007.

[6] See also table 90, p. 1009.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

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TABLE 95.—*Admissions for neuropsychiatric conditions, by diagnosis and year, compared with diseases and battle and nonbattle injuries and wounds, U.S. Army, China-Burma-India theater, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	2,898	6.5	47	5.4	411	10.4	1,125	6.7	1,315	5.7
Psychiatric disorders: [3]										
Psychosis	1,198	2.7	18	2.1	90	2.3	355	2.1	735	3.2
Psychoneurosis	6,622	14.8	79	9.0	673	17.0	3,225	19.1	2,645	11.4
Character and behavior disorders	1,724	3.9	30	3.4	164	4.1	620	3.7	910	4.0
Disorders of intelligence	187	.4	3	.3	24	.6	55	.3	105	.5
Other	1,137	2.5	11	1.3	81	2.0	310	1.8	735	3.2
Total psychiatric disorders	10,868	24.3	141	16.1	1,032	26.0	4,565	27.0	5,130	22.3
Total neuropsychiatric disorders	13,766	30.8	188	21.5	1,443	36.4	5,690	33.7	6,445	28.0
Diseases [4]	345,987	733.3	8,240	942.2	45,347	1,144.6	153,830	911.8	138,570	601.6
Battle casualties [5]	3,286	7.3	20	2.3	238	6.0	2,146	12.7	882	3.8
Nonbattle injuries and wounds [6]	37,651	84.2	854	97.6	4,332	109.3	14,225	84.3	18,240	79.2

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I, Zone of Interior, 1966, table 6, p. 216.

[4] See also table 89, p. 1008.

[5] See also table 88, p. 1007.

[6] See also table 90, p. 1009.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 96.—*Admissions for neuropsychiatric conditions, by diagnosis and year, compared with diseases and battle and nonbattle injuries and wounds, U.S. Army, Southwest Pacific Area, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	10,920	6.9	532	7.5	1,863	9.8	3,910	7.3	4,615	5.9
Psychiatric disorders: [3]										
Psychosis	8,192	5.2	201	2.8	821	4.3	3,245	6.0	3,925	5.0
Psychoneurosis	41,595	26.2	1,336	18.7	5,794	30.6	15,160	28.1	19,305	24.6
Character and behavior disorders	6,389	4.0	253	3.6	711	3.7	2,205	4.1	3,220	4.1
Disorders of intelligence	614	.4	24	.3	115	.6	280	.5	195	.2
Other	12,179	7.7	92	1.3	757	4.0	5,460	10.1	5,870	7.5
Total psychiatric disorders	68,969	43.5	1,906	26.7	8,198	43.2	26,350	48.8	32,515	41.4
Total neuropsychiatric disorders	79,889	50.4	2,438	34.2	10,061	53.0	30,260	56.1	37,130	47.3
Diseases [4]	1,279,720	806.9	55,817	783.7	182,328	960.1	407,995	756.6	633,580	806.5
Battle casualties [5]	71,951	45.4	1,925	27.0	1,998	10.5	20,124	37.3	47,904	61.0
Nonbattle injuries and wounds [6]	173,674	109.5	10,998	154.4	29,601	155.9	61,365	113.8	71,710	91.3

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, table 6, p. 216.

[4] See also table 89, p. 1008.

[5] See also table 88, p. 1007.

[6] See also table 90, p. 1009.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

climates, isolation and monotony, exposure to exotic diseases—all these stress circumstances prevailed in 1943–44. As a result, the rates for disease, neurological disorders, and nonbattle injury were high; also, the rates for psychiatric disorders were considerably higher than could be accounted for by the modest battle casualty rate. In fact, the psychiatric (specifically psychoneurosis) rate decreased slightly with the greater intensity of combat in 1944. It is noteworthy that the Southwest Pacific Area had the highest rate of psychosis of all theaters of operations. Here, even more than in the China-Burma-India theater, the utilization of Atabrine was associated with an acute florid psychotic syndrome.[33]

Atabrine psychoses were not reported from the other Pacific areas, or from the Mediterranean and Middle East theaters, in all of which Atabrine was regularly employed as a safeguard against malaria. It would appear that situational stress can evoke psychoses, provided that such stress circumstances include severe deprivations under primitive living conditions and a prolonged duration of combat conditions.

Whether Atabrine served as a specific toxic precipitating factor in the Southwest Pacific Area and China-Burma-India theater, or was only an added element of situational strain, will probably never be known. It must be recognized, however, that acute florid psychotic reactions were noted not infrequently in the Southwest Pacific Area (pp. 765–766) without reference to the ingestion of Atabrine. Experiences of other theaters in World War II indicate that Atabrine alone, without the situational stress and primitive conditions of tropical living, did not produce psychotic reactions.

Pacific Ocean Area.—The boundaries of the Pacific Ocean Area changed from its early phase of operations (1942–44) in the South Pacific Area, where the Guadalcanal and New Georgia campaigns were waged, to the Central Pacific Area in 1944, and finally Okinawa, in 1945. With these geographic changes, the situational stress of hot and humid climates, and primitive living conditions, was more prominent in the initial war years, with episodes of intense combat. Thereafter, the climate and living conditions improved, and severe combat was encountered only in 1945, during the Okinawa campaign. As a result, psychiatric casualties were quite high in 1943, along with a high incidence of disease and nonbattle injury (table 97). The rate of psychosis was also elevated during the war years, although no incidence of Atabrine psychoses was reported.

North American theater.—Included in the North American theater were Alaska, the Aleutians, Canada, Iceland, and Greenland; also Bermuda and the Azores. The major stress circumstances for most personnel (other than for those in Bermuda and the Azores) involved the cold, wet climate, monotony, isolation, and poor living conditions.

In this theater (table 98), although nonbattle injury (cold injury) was quite high, the overall disease rate was less than that in temperate

[33] See appendixes I and K.

TABLE 97.—*Admissions for neuropsychiatric conditions, by diagnosis and year, compared with diseases and battle and nonbattle injuries and wounds, U.S. Army, Pacific Ocean Area, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	8,101	5.6	718	4.8	2,388	8.2	2,605	5.9	2,390	4.3
Psychiatric disorders: [3]										
Psychosis	4,896	3.4	468	3.1	1,148	3.9	1,670	3.8	1,610	2.9
Psychoneurosis	35,299	24.6	1,919	12.6	11,085	37.9	10,530	24.0	11,765	20.9
Character and behavior disorders	4,819	3.3	508	3.4	1,066	3.7	1,855	4.2	1,390	2.5
Disorders of intelligence	872	.6	85	.6	337	1.2	310	.7	140	.3
Other	3,122	2.2	302	2.0	985	3.4	770	1.8	1,065	1.9
Total psychiatric disorders	49,008	34.1	3,282	21.7	14,621	50.1	15,135	34.5	15,970	28.5
Total neuropsychiatric disorders	57,109	39.7	4,000	26.5	17,009	58.3	17,740	40.4	18,360	32.8
Diseases [4]	753,081	522.9	72,478	480.1	229,243	786.3	227,910	519.5	223,450	399.6
Battle casualties [5]	38,643	26.8	962	6.4	4,813	16.5	9,594	21.9	23,274	41.6
Nonbattle injuries and wounds [6]	129,830	90.1	14,790	98.0	32,045	109.9	42,775	97.5	40,220	71.9

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior, 1966, table 6, p. 216.

[4] See also table 89, p. 1008.

[5] See also table 88, p. 1007.

[6] See also table 90, p. 1009.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 98.—*Admissions for neuropsychiatric conditions, by diagnosis and year, compared with diseases and battle and nonbattle injuries and wounds, U.S. Army, North American theater, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	3,451	7.0	668	6.6	1,628	8.4	850	6.6	305	4.5
Psychiatric disorders: [3]										
Psychosis	1,182	2.4	295	2.9	547	2.8	245	1.9	95	1.4
Psychoneurosis	5,943	12.1	1,012	10.2	2,661	13.7	1,600	12.3	670	10.1
Character and behavior disorders	1,514	3.1	323	3.2	571	2.9	435	3.4	185	2.7
Disorders of intelligence	220	.4	44	.4	91	.5	75	.6	10	.1
Other	877	1.8	186	1.8	391	2.0	135	1.0	165	2.5
Total psychiatric disorders	9,736	19.8	1,860	18.5	4,261	21.9	2,490	19.2	1,125	16.8
Total neuropsychiatric disorders	13,187	26.8	2,528	25.1	5,889	30.3	3,340	25.8	1,430	21.3
Diseases [4]	241,638	491.5	61,607	612.3	98,781	507.9	57,290	443.3	23,960	356.1
Battle casualties [5]	1,539	3.1	68	.7	1,446	7.4	21	.2	4	.1
Nonbattle injuries and wounds [6]	58,032	118.0	13,687	136.0	25,700	132.2	13,260	102.6	5,385	80.0

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I, Zone of Interior, 1966, table 6, p. 216.

[4] See also table 89, p. 1008.

[5] See also table 88, p. 1007.

[6] See also table 90, p. 1009.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

climates. Also unexpected was that, even with the restrictions and deprivations, no significant increase occurred in the rate of psychiatric disorders, including psychoses. It has been stated that discomfort was so universally experienced that psychiatric casualties were not readily discernible. (See chapter XIX.) Also, evacuation for psychiatric disorders and diseases was so difficult that it precluded the utilization of a "sick" role.

Latin American area.—In the Latin American area (table 99), the function of the fewer than 100,000 military personnel, stationed in Panama, the Ascension and Galápagos Islands, and West Indies, was to provide logistic and communication support services. Combat was practically nonexistent. Living conditions varied, depending upon the particular area of assignment. Rates of disease and nonbattle injury were higher than in the United States. Psychiatric disorders, however, were considerably less than in the continental United States, although somewhat higher than in the North American theater. This lower neuropsychiatric rate perhaps indicated that personnel in the Latin American area had successfully completed training and other transitions to military life. Psychoses and character and behavior disorders were somewhat increased, which could reflect isolation and monotony of living. Similar circumstances in the North American theater did not result in increased psychoses and character and behavior disorders.

Troop transports.—In table 100 are statistical data from unique circumstances during wartime—admissions to medical facilities from troops being transported to and from overseas areas. Outstanding is the remarkably low incidence of all psychiatric conditions, which clearly indicated that psychiatric illness aboard ship has no adaptive value or purpose. A surprising finding is a high incidence of the neurological disorders, several times the rate in the continental United States and overseas areas. This, however, is an artifact, for practically all these neurological disorders represented motion sickness, placed in the neurological disorders category. Obviously, considerable motion sickness was an acceptable and logical result of transportation by ship.

SUMMARY

War provides unusual opportunities for learning, firsthand, the problems of man's adaptation under difficult and changing circumstances. World War II was fought in many theaters of operations, under various conditions of climate, terrain, tactical requirements, hardship, and danger. Out of these experiences came awareness that social and situational determinants of behavior were more important than the assets and liabilities of individuals involved in coping with wartime stress and strain; further, that failure of adaptation could be manifested by a variety of symptoms or behavioral patterns, dependent upon such factors as previous conditioning, the need

TABLE 99.—*Admissions for neuropsychiatric conditions, by diagnosis and year, compared with diseases and battle and nonbattle injuries and wounds, U.S. Army, Latin American area, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]
[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	2,179	5.7	715	7.0	769	6.4	415	4.8	280	3.9
Psychiatric disorders: [3]										
Psychosis	1,197	3.1	389	3.8	368	3.0	265	3.1	175	2.4
Psychoneurosis	5,404	14.3	1,173	11.5	1,676	13.9	1,535	17.8	1,020	14.2
Character and behavior disorders	2,204	5.8	801	7.9	743	6.1	410	4.8	250	3.5
Disorders of intelligence	125	.3	52	.5	43	.4	15	.2	15	.3
Other	1,372	3.6	248	2.4	404	3.3	340	4.0	380	5.3
Total psychiatric disorders	10,302	27.1	2,663	26.1	3,234	26.7	2,565	29.9	1,840	25.7
Total neuropsychiatric disorders	12,481	32.8	3,378	33.1	4,003	33.1	2,980	34.7	2,120	29.6
Diseases [4]	236,684	622.5	78,868	733.8	75,186	622.2	45,925	535.3	36,705	512.2
Battle casualties [5]	37	.1	1	[6] .0	6	.1	9	.1	21	.3
Nonbattle injuries and wounds [7]	34,199	89.9	11,460	112.4	12,294	101.7	6,445	75.1	4,000	55.8

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I, Zone of Interior, 1966, table 6, p. 216.

[4] See also table 89, p. 1008.

[5] See also table 88, p. 1007.

[6] Rate is more than zero, but less than 0.05.

[7] See also table 90, p. 1009.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

TABLE 100.—*Admissions for neuropsychiatric conditions, by diagnosis and year, U.S. Army, on transports, 1942–45* [1]

[Preliminary data based on tabulations of individual medical records]

[Rate expressed as number of admissions per 1,000 mean strength per year]

Diagnosis	Total 1942–45		1942		1943		1944		1945	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Neurological disorders [2]	7,229	21.8	393	9.7	1,306	17.4	2,410	28.4	3,120	23.6
Psychiatric disorders: [3]										
Psychosis	177	0.5	27	0.7	45	0.6	45	0.5	60	0.5
Psychoneurosis	732	2.2	69	1.8	178	2.4	250	3.0	235	1.7
Character and behavior disorders	187	.6	21	.5	26	.3	40	.5	100	.8
Disorders of intelligence	9	.0	5	.1	4	.1	0	----	0	----
Other	101	.3	10	.2	31	.4	25	0.3	35	0.3
Total psychiatric disorders	1,206	3.6	132	3.3	284	3.8	360	4.3	430	3.3
Total neuropsychiatric disorders	8,435	25.4	525	13.0	1,590	21.2	2,770	32.7	3,550	26.9

[1] Includes some patients treated on an outpatient basis for whom individual medical records were made for record purposes (CRO cases).

[2] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, table 60, p. 534.

[3] For detailed diagnostic distribution, *see* Medical Department, United States Army. Neuropsychiatry in World War II. Volume I, Zone of Interior, 1966, table 6, p. 216.

[4] Rate is more than zero, but less than 0.05.

Source: Medical Statistics Agency, Office of The Surgeon General, Department of the Army.

for communicating distress, cultural values for illness, acceptance by the reference group, and the particular circumstances in which failure occurred.

From the foregoing findings, military psychiatry in World War II rediscovered lessons of World War I and, through the war years, elaborated effective procedures for the control of psychiatric disorders and other types of noneffective adjustment. Particular attention was paid to the environment of treatment, which included promptness of intervention, location, expectancy for recovery, and diagnostic labels—all elements exerting a significant influence upon outcome. These procedural changes were based on what has become known as the principles of immediacy, proximity, and expectancy.[34]

In addition, psychiatrists in World War II recognized that command was responsible for the social and situational determinants in a military setting. With this awareness, psychiatrists, in their role as staff advisers to commanders, attempted to alter or modify conditions under which soldiers lived, trained, worked, and fought. In time, programs for the prevention of psychiatric and behavioral disorders were gradually evolved, becoming a regular function of military psychiatry.

This chapter of "Lessons Learned" has endeavored to set forth in some detail the major gains of military psychiatry, achieved in overseas and combat theaters during World War II. It is a companion chapter to that in the first volume of the history of neuropsychiatry,[35] on the World War II experiences of psychiatry in the continental United States. It is hoped that inclusion of these summarizations in each volume will help to avoid "failure to heed the lessons of history."

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[34] See footnote 17, p. 1000.

[35] Medical Department, United States Army. Neuropsychiatry in World War II. Volume I. Zone of Interior. Washington: U.S. Government Printing Office, 1966, pp. 735–759.

APPENDIX A

Organization of Neuropsychiatry in the Combat Zone

The tentative plans for the organization of neuropsychiatry in the combat zone, developed by Capt. Frederick R. Hanson, MC, in February 1943, were substantially as follows:

I. INTRODUCTION:

a. Premise granted is the need for forward area neuropsychiatric treatment.
b. All suggestions are general and tentative pending practical verification.

II. SORTING, CLASSIFICATION, AND PROGNOSIS OF EACH GROUP:

a. *Untreatable cases:*
   (1) Types: Psychoses, irrecoverable organic neurological diseases, confirmed epileptics, certain types of psychopaths (e.g., drug addiction, sexual perversion), severe frequently recurring neuroses, pronounced mental defectives.
   (2) Prognosis: Useless to Army.
b. *Questionably treatable cases:*
   (1) Types: Certain types of psychopaths (e.g., emotional instability, criminalism, inferiority), unconfirmed epileptics, moderately severe neuroses, moderate mental defectives.
   (2) Prognosis: Questionable (2–4 week study).
c. *Treatable cases:*
   (1) Types: Minor to moderate neuroses (approximately 60% of battle NP casualties), minor psychopaths, organic neurological, and delinquency cases.
   (2) Prognosis: Good (60% return to duty in 1–7 days, balance evacuate to rear).

III. WHAT IS DONE AT EACH STATION IN CHAIN OF EVACUATION (FRONT) TO REAR:

a. *Medical Battalion Clearing Section:*
   (1) Preliminary nondefinitive treatment (heat, food, rest).
   (2) Separation of organic and nonorganic cases.
   (3) Rapid evacuation of nonorganic cases to b.
b. *Evacuation Hospital:*
   (1) Rapid separation of treatable and nontreatable cases.
   (2) Rapid evacuation of nontreatable cases (to general hospital) and questionably treatable cases (to special NP hospital).
   (3) Definitive treatment of favorable cases: Majority of this group returned directly (3–5 days) to duty or to duty after an additional *few* days in convalescent hospital, balance to special NP hospital or general hospital.
c. *Special NP Hospital:*
   (1) Definitive treatment (2–5 weeks) of more difficult doubtful cases, and medicolegal cases.
   (2) Reclassification.
   (3) Disposition (duty, convalescent hospital, general hospital).
d. *General Hospital:*
   (1) Reclassification: Majority to ZI.
   (2) Definitive treatment of longer term, and combined cases.
   (3) Treatment (with other installations) of base troops.
   (4) Holding (with special psychiatric hospitals) of cases for return to ZI.

IV. REQUIREMENTS:

a. *Medical Battalion:* Indoctrination of medical officer personnel (short term special schools when possible).

b. *Evacuation Hospital:*

(1) Personnel: Neuropsychiatrist and special orderlies or nurses.

(2) Equipment: Beds in general medical wards and separate tent(s) (wards).

(3) Supplies: In general, only routine hospitals.

c. *Special NP Hospital (type not determined):*

(1) Location: Advance Section Communications Zone.

(2) Type: 250-bed, semimobile.

(3) Personnel:

a. Officer: Predominately psychiatrists and neurologists.

b. Enlisted men: Keymen with special training in neuropsychiatry.

(4) Purpose: As under IIIc and as a reserve pool of psychiatrists.

d. *General Hospital:* As under present T/O.

V. METHODS: Detailed recommendations of diagnosis, treatment and disposition will be forwarded to Lt. Colonel L. J. Thompson after further study under combat zone conditions. This would be best accomplished by trial of two to three teams in North Africa under battle conditions and request will be made for such teams if circumstances permit.

VI. METHODS OF INDOCTRINATION:

a. Schools in the form of hospital tour of duty for internists in medical battalions and *orderlies.*

b. Tour of duty in combat zone for general hospital specialists.

c. Precombat selection of combat troops and discussion of problems with battalion medical officers at that time.

d. Close liaison of consultants and corps psychiatrists, with forward units.

VII. PROBLEMS TO BE SOLVED:

a. Personnel and equipment needed.

b. Interchangeability (pool) of personnel.

c. Need of forward area NP center and its type.

d. Need of corps psychiatrists.

APPENDIX B

Memorandum—Psychoneurosis (Combat Exhaustion)

HEADQUARTERS
COMMUNICATIONS ZONE
EUROPEAN THEATER OF OPERATIONS
UNITED STATES ARMY
APO 887
Office of the Chief Surgeon
4 August 1944

MEMORANDUM FOR: G–1, ETO prh/glc
SUBJECT : Psychoneurosis (Combat Exhaustion)

1. *Definition* Psychoneurosis is a *condition*, not a disease, which results from an individual surrendering to an adverse situation. It manifests itself in many ways and in varying degrees from a mild hypochondria to a severe anxiety neurosis.

2. *Cause* a. *General* *The basic cause of psychoneurosis is insufficient courage.* Courage is not to be confused with bravery. A courageous man may be badly frightened, but does not surrender to his fright. The amount of courage required by an individual to cope successfully with his environment is in inverse proportion to the friendliness of his environment. A man almost devoid of courage is able to lead a life of some usefulness so long as he is spared the necessity of confronting hostile or troublesome situations.

b. *Psychoneurosis in civil life* Psychoneurosis is by no means exclusively a military problem. It occurs with great frequency in civil life and furnishes physicians a large proportion of their incomes even though they frequently fail to make the correct diagnosis.

For example, a new department manager is brought into a store. The ribbon counter clerk was adjusted to the old manager, but does not know whether the new manager will retain him or dismiss him. He thereupon develops vague headaches and insomnia and either goes to a physician or prescribes his own patent medicine upon the advice of advertisements.

An old-established firm fails, and all employees lose their positions. The courageous ones reestablish themselves, regardless of repeated rebuffs and disappointments. The less courageous ones develop psychoneurosis, after more or less disappointments depending upon their stock of courage and how soon it is exhausted.

This is to say that all men are not endowed with an equal amount of courage. Every man has his breaking point and, if pushed beyond it, will develop a psychoneurosis.

c. *Contributory causes* Physical condition exerts a great influence both upon the production and the cure of psychoneurosis. This is often seen in prolonged illnesses, where the courage of the patient and his ability to suffer pain diminish with time. Physical exhaustion markedly decreases a man's courage.

3. *Psychoneurosis in soldiers* a. *In other than combat zones* A considerable number of recruits develop a psychoneurosis shortly after induction. These are, in general, people who either have been badly adjusted in civil life, or who were relatively well adjusted to an easy and secure environment. When such were hurriedly removed from surroundings in which they were reasonably secure and placed in a new world full of strange things, their courage was inadequate.

Movement overseas cracked others who had adjusted fairly well to military service in the Z/I and this cracking continued after arrival overseas, precipitated by such situations as overwork, criticism—friendly or otherwise—by their associates, failure to

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obtain promotion which the officer or soldier thought his due, nostalgia, and many other irritants real or imagined.

b. *In combat,* environment is the least healthy of all. Men are killed in plain view of other men. Others are maimed. Greater courage is required to withstand such untoward incidents. Furthermore, physical exhaustion, from long marches and little sleep, is a common state among combat troops.

4. *Prevention of psychoneurosis in soldiers* a. *Factors in behavior of soldiers* Perhaps the two most important governing factors in a soldier's behavior are confidence in his leadership and fear. Of these, it is probable that fear is the greater.

b. *Confidence in leadership* There are only a few people in the world who feel adequate in themselves to face serious crises. Most people, faced with a crisis, turn instinctively to another person in whom they have confidence. There are many soldiers who, left to their own devices, would turn and run from the enemy, but who are held to their duty by a calm and impressive noncommissioned officer. The noncommissioned officer, in turn, must receive moral support from his platoon leader, and he from his company commander. Lack of confidence in his leadership is fatal to the soldier of low courage.

c. *Fear* It is my opinion that fear is the ultimate dominating factor in human behavior and that, in war, it should be exploited to the fullest extent.

The noblest application of fear is the fear of being afraid. Undoubtedly every soldier is afraid at some time or another—and many of them are afraid most of the time. But the soldier who is more afraid of being afraid—of exhibiting signs of cowardice—than he is afraid of the enemy is a fine type of soldier. This application of fear should be exploited by all commanders.

Unfortunately, however, there is a certain proportion of soldiers who are more afraid of the enemy, and what the enemy can do to them, than they are of being cowardly. Nevertheless, a still more potent fear can be generated in such soldiers; and this the fear of certain punishment which is as bad as the worst the enemy can inflict. If every soldier *knew* that he would be executed for cowardice, for malingering, or for a self-inflicted wound, the vast majority of the weakling would choose the more favorable odds offered in facing the enemy.

So long as the soldier is permitted to malinger, to shoot himself and be cleared of intent in 90 percent of cases, and even permitted to develop a psychoneurosis, we are going to be confronted with this problem. The plain fact is that—aided, abetted and confused by too much psychiatric theory—our War Department and our commanders have not faced this problem in a realistic manner.

I realize how unpopular my opinions are with psychiatrists. Perhaps my opinions are influenced by the fact that I have been a soldier for nearly thirty years. But there is one fact that no psychiatrist can explain—*psychoneurosis is not a problem in the Russian Army.* The Russians punish cowardice with death.

5. *Cure of psychoneurosis* a. Since physical exhaustion plays such an important role in the production of psychoneurosis, there is a considerable proportion of cases—not as large as many psychiatrists believe—that are cured with rest, sedatives and good food. These are cases developing in soldiers of some courage, who break not primarily from the emotional strain of combat but for other reasons, such as fatigue, family trouble, or other contributing factors. Such soldiers can be returned to full combat duty; but the great majority of them, under our present system of management, will break again *under similar circumstances.*

b. There is a small, a very small, group of soldiers who break after months of combat service—not from any one incident or situation but from the cumulative effect of hundreds of days and nights of uncertainty, of exhaustion, and of the presence of death. Many of these soldiers have been outstanding, some decorated for valor.

These cases are *real.* They have a real psychoneurosis, not a want of courage because

they have demonstrated their courage for many months. It is that they have just made too many trips to the well of their courage, and it has temporarily gone dry.

Some of these cases can be restored to combat duty, but not all—perhaps less than half. But practically all of them can be restored to useful duty, where their great combat experience can be utilized—in training or in the administration of the replacement system in the CZ.

c. There is next a group of cases of which, under our present system of management, few can ever be restored to combat duty. These soldiers simply do not have sufficient courage—and again I stress the difference between courage and bravery—to support them in combat. They can be restored to some useful service in rear of the immediate fighting—even to labor in the combat zone not far behind the lines.

The question was asked me by G–1, War Department: "If such men can be restored to labor duty in the combat zone, why cannot they be returned to actual combat duty?"

The answer to this question seems to me to be that it takes more to make a combat soldier than his mere presence in a combat unit; that the very nature of combat requires considerable dispersion of soldiers and some amount of courage, initiative and self-reliance on the part of each combat soldier; whereas laborers can be and are worked in groups—under guard, if necessary—and are not employed in the actual front line.

These men can be made again into combat soldiers only if the fear of summary execution can be made to dominate their fear of injury by the enemy. But, so long as soldiers in this group know that they can continue to escape combat service by developing symptoms, they can never be remade into combat soldiers.

d. There is a fourth group of psychoneurotics with such profound symptoms as to be actually psychotic. These cases are hopeless from a military standpoint, and should be discharged from the service under SECTION VIII, AR 615–360 at once. This is relatively a small group.

6. *Utilization of psychoneurotics* a. The group of the milder cases—whom the term "combat exhaustion" fits more nearly than it does the majority of cases—can be and are being returned to combat duty. As a *general* rule, these are the poorer type of soldier, but are usable in combat units.

b. The second group—those who crack after months of combat—can be and are being rehabilitated for useful service in some capacity.

c. As regards the third group—those that can under our present system of management be remade into combat soldiers only with great difficulty but who can be salved for some useful labor—these constitute the great administrative as well as the great medical problem.

I am unalterably opposed to returning such soldiers to duty in normal units, either combat or service. It must be remembered that there are *potential* psychoneurotics in every unit in the Army and that most of these are deterred from showing symptoms by the example of the better of their comrades. To dilute such units with these weaklings is only to invite an epidemic of psychoneurosis among the soldiers of the unit who, until subjected to this influence, were doing acceptable duty. Such a solution is merely placing rotten apples in barrels of sound ones.

However, organized into special units under specially selected officers and non-commissioned officers and properly administered, some useful work can be had from them and some can be salvaged for full duty.

Such units should be worked hard. They should be quartered and fed under no better conditions than combat troops. There should be no attractive considerations to invite soldiers into such units.

Shame at being a member of such a unit will salvage a certain proportion. Others, without shame, will be content in such a unit for the duration of the war. And perhaps some will deteriorate into the fourth class and have to be discharged.

The point is, however, that the existence of such a problem must be squarely faced

sooner or later. It is a command problem. The Medical Department can say—with greater or lesser accuracy—that here is a soldier that is remade into a complete soldier; or that here is a soldier that, under existing restrictions, cannot be remade at this time into a complete soldier but can be used under certain conditions, or that here is a soldier who will always be worthless. The Medical Department also can advise—with complete accuracy—that, if soldiers of the second group are mixed with good soldiers, the standard of the good soldiers will drop appreciably.

Further than this the Medical Department cannot go—nor should it intrude. The problems that face the commander are these:

(1) Shall I use this middle group that can perform some useful service but cannot all be remade into complete soldiers?

(2) If I shall use them, should I charge them against my troop basis knowing that they will not be more than 60 percent as effective as good soldiers?

(3) If I shall not use them, shall they be discharged from the service and replaced with new drafts upon the population?

While the answers to these questions are not the concern of the Medical Department, it seems evident that no commander will voluntarily elect to use such poor material if he is charged with it on his troop basis at the same rate as good material. It would appear, then, that the time has come for the War Department to face this problem realistically by relaxing the rigid limits of troop bases sufficiently to provide some cushion for this poor material.

PAUL R. HAWLEY,
Major General, USA,
Chief Surgeon.

APPENDIX C

Mental Status of "Combat Exhaustion" Personnel Attached to 90th and 96th Quartermaster Battalions

BOARD OF PSYCHIATRISTS
Appointed by the Chief Surgeon
19th General Hospital
Communications Zone
ETOUSA

APO 573
26 Nov 1944

SUBJECT: Report on the Mental Status of "Combat Exhaustion" Personnel Attached to the 90th and 96th Quartermaster Battalions.

TO : Chief Surgeon, ETOUSA, APO 887, US Army (Thru Channels).

1. This report was requested by the Chief Consultant in Neuropsychiatry, ETOUSA.

2. *BACKGROUND:*

a. Personnel.

(1) A large number of men suffering from "Combat Exhaustion" were evacuated to the Communications Zone. Most of these men had received light narcosis therapy in forward medical echelons, and all had been judged unfit for further combat duty. They were assigned to the 90th QM Battalion directly or indirectly by way of the 5th General Hospital, and remained attached to the Detachment of Patients, 5th General Hospital.

(2) At the 90th QM Bn the men received an orientation lecture and were told that they would not have to return to combat.

(3) They were then reviewed psychiatrically in order to eliminate by hospitalization those unfit for further duty: a total of 4,350 men were processed during the months of August and September 1944, and 169 of these were returned to the hospital.

b. Organization.

(1) Cadres were formed from suitable NCO material, and personnel were added as needed to form companies which conformed as nearly as possible to the T/O 10–637 of a QM Service Company.

(2) Some companies were commanded by officers with "combat exhaustion," but most were headed by Quartermaster and Ordnance Service Officers.

(3) Administrative control of the companies on duty in the Normandy Base Section was transferred to the 96th QM Bn late in August. These men remained assigned to the Detachment of Patients, 5th General Hospital. All subsequent assignments were to the Detachment of Patients, 19th General Hospital.

c. Duties.

(1) Approximately 90 percent of the entire group were assigned duties during the period 8th to 28th of August, 1944. Those remaining were assigned at later dates.

(2) They were given Ordnance, Quartermaster, Medical, and miscellaneous duties.

d. Equipment.

(1) The original issue of equipment included no vehicles, a modicum of

essential equipment, and no recreational equipment. Units attached to Ordnance were loaned vehicles by the Depots, but QM-attached units were less fortunate in general. As a result, shortages of water and rations occurred at various times.

3. *PRESENT TASK.*

a. These men had worked in provisional non-combat jobs for periods of one to three months. The Chief Surgeon directed that they be re-evaluated carefully by a team of psychiatrists and sent to full duty or limited assignment, or re-hospitalized for treatment and disposition in medical channels.

4. *METHOD OF EVALUATION.*

a. The following psychiatrists assembled at the 19th General Hospital: Harry M. Gardiner, Major, MC, J. Watson Harmeier, Major, MC, Roy L. Swank, Major, MC, Harold L. Vyner, Major, MC, Benjamin Cohen, Capt., MC, Edward Gendel, Capt., MC, Werner Hamburger, Capt., MC, Jack R. Jarvis, Capt., MC, and Ludlow M. Pence, Capt., MC. They were assisted by four psychiatric nurses from the 19th General Hospital, and by enlisted personnel from the 19th and 5th General Hospitals.

b. One building with a patient capacity of 290 beds was made available for this project.

c. The men to be processed were transported to the 19th General Hospital by truck and examined after one night of rest.

d. The men were interviewed individually for a period of 10 to 30 minutes. Each man was given a sufficiently detailed psychiatric examination to establish a diagnosis and disposition. When doubt of any kind arose in the mind of the examiner, one or more additional members of the psychiatric team interviewed the patient. Groups which had not had the opportunity to sleep before the scheduled interview were allowed to rest.

e. Cases presenting medical or surgical problems were referred to the 19th General Hospital for clearance.

f. Attempt was made to conduct all examinations under the most favorable possible circumstances. They were assured in advance, in many cases, by their unit commanders, that the purpose of the interview was to evaluate them fairly, and that assignment to duty within their physical limits, or hospitalization for further treatment would be decided on an individual basis. Interviews were conducted quietly and sympathetically. Soldiers were given sufficient opportunity to express their complaints and specific questions were directed as indicated. At the conclusion of each interview, the soldier was told about his disposition and was permitted to raise any questions he cared to ask in quest of further information.

g. Those patients considered fit for duty were sent directly to the 15th Replacement Depot with specific recommendations for assignment. Those deemed unsuitable for duty were admitted to the 19th General Hospital for transfer to the 312th Station Hospital, 96th General Hospital, and, for Officer Patients, the 182nd General Hospital. The 96th General Hospital was recommended for patients who because of psychosis, psychopathic personality, or severe recurrent or chronic psychoneurosis were considered to have an unfavorable prognosis. The 312th Station Hospital was recommended for those soldiers who had relatively acute symptomatology due to combat, or combat exacerbations of mild chronic complaints with favorable outlook. In a few cases, admission to the 19th General Hospital was employed for the purpose of further psychiatric observation, or for the evaluation of physical symptoms.

h. At the beginning of the project, the method of evaluation used throughout was observed and approved by Colonel William C. Menninger, Consultant in Neuropsychiatry, Office of the Surgeon General, Colonel L. J. Thompson, Senior Consultant in Neuropsychiatry, ETOUSA, and Lt. Colonel George G. Durst, MC, Surgeon, Ground Force Replacement System.

5. *FINDINGS.*

a. General Clinical Observations.

(1) The outstanding fact, in the opinion of all examiners, was that the great majority of men examined were still psychiatrically ill, after having been out of combat for periods varying from one to three months.

(2) Even those considered fit for non-combat duty presented varying degrees of residual psychiatric symptoms. Their military usefulness was, therefore, often limited, in that they were unable to perform certain non-combat tasks reminiscent of the combat situation, e.g., handling of firearms and ammunition, exposure to noises, etc. It is important to realize, in evaluating the statistical data, that more men had symptoms than appears from a simple comparison of the "Duty" and "Hospital" figures.

(3) The severity of the illness may not be apparent to the observer looking at the patient or engaged in a short superficial conversation with him. Many patients lack insight into their illness. Men will sometimes enter the office giving the superficial impression of mental health and stability. And only as the examination progresses and as rapport is established, do the psychiatric symptoms become apparent.

(4) Many patients reported an aggravation of their symptoms about a week or two weeks prior to this examination, when the proposed survey and reassignment became known. Rumors about a return to combat ran rife, and the men became uncertain about their status.

(5) Diagnostically, the great majority of reactions fall into the psychoneurotic group. The remaining cases include psychopathic states, mental defective, organic post-traumatic syndromes and a few psychotic reactions; numerically, however, all these reactions were not significant.

(6) Of the reactions classified as "Psychoneuroses," the majority presented a mixture of symptoms, only a few clearly resembling textbook types of psychoneuroses.

(a) Anxiety and its somatic manifestations, while present in most cases, was generally less dramatic than in acute combat cases. Sensitivity to noises, fear of the dark, tremors and vasomotor phenomena figured prominently in the manifestations noted. Fear of return to combat was their main preoccupation, and anxiety became intensified when return to combat was mentioned.

(b) Somatic manifestations, relatively infrequent in appearance, were seen approximately in the following order of frequency: Headaches, gastrointestinal features (loss of appetite, nausea, weight loss), cardiovascular features (palpitation, and substernal pressure), genitourinary features (frequency) and orthopedic complaints (the latter often superimposed upon some minor pre-existing disability). These symptoms were seldom severe or incapacitating.

(c) A number of patients showed reactive depressions, usually accompanied by retardation of thought and psychomotor retardation. Some patients attempted to conceal their depression, and their facial expression was more revealing than what they said. Only when their confidence was gained, did they admit the degree of hopelessness and discouragement they experienced. Only a very few were felt to be severely depressed, requiring immediate hospitalization. In a somewhat larger number of cases, retardation without mood depression was the outstanding symptom. Some depressions were coupled with anxiety, but, as a rule, anxiety was absent in these cases.

(d) Many patients, with no history or evidence of organic central nervous system damage, complained of inability to maintain concentration, of slowness of thinking and of forgetfulness. Others manifested a general intellectual let-down with lack of interest and ambition, fatigability, indifference and dullness. Others showed tendencies toward seclusiveness.

(e) Many previously stable individuals reported emotional outbursts, irritability, panic-like states and other manifestations of instability.

(f) Many, without being able to specify their symptoms, emphasized that they were "different" than before the onset of their illness. And others, again, who were objectively definitely ill, were not aware of their illness and protested against hospitalization by insisting that they were "all right."

b. Statistical Analysis and Correlation of Symptoms According to Units. Our statistical data, compiled according to units, are given in the accompanying charts. Several significant conclusions seem justified.

(1) Evidence of anxiety (sleeplessness, disturbing dreams, startle reactions, tension, tremors, and emotional instability), and abnormal psychological reactions (depression, retardation, apathy, memory defect, preoccupation, and difficulty of concentration) were most characteristic of the units which had the highest incidence of hospitalization.

(2) This was not true of existing somatic complaints since these remained relatively constant throughout.

(3) Contrary to expectations, the frequency of abnormal constitutional factors (neurotic and psychopathic) was fairly uniform throughout, and had no bearing upon unit hospitalization rates.

(4) There was a very definite relationship between the number of combat days and the incidence of hospitalization; units with the greatest number of men of long combat experience were the sickest, and had the largest hospitalization figures. The incidence of routine forward-echelon narcotherapy was approximately the same in all groups, which suggests that long combat men were least benefitted by this treatment.

(5) There was no relationship between the percentage of combat replacements in each group and hospitalization incidence.

(6) Hospitalization was greatest in units with the highest percentage of men who had been wounded.

(7) There appears to be a correlation between the nature of the previous living and working conditions and the severity of symptomatology; this is also true with reference to the quality of their leadership.

(8) It may be significant that units with the highest hospitalization rates had been alerted for longer periods of time. It was the opinion of the examiners that many men in other units experienced an exacerbation of their symptoms when informed of their impending change of status.

c. Disposition of Cases.

A total of 4,588 enlisted men were processed, of whom 2,085 (45 percent) were sent to duty by way of the 15th Replacement Depot (one for General Assignment) and 2,503 (55 percent) were hospitalized. The total number was greater than originally expected because several additional hundreds of men were intercepted at the 19th General Hospital en route to assignments with the 90th and 96th QM Battalions.

Recommendations for work assignments were made with knowledge of existing priorities. Of the non-combat duties, preference was given to Prisoner of War guard assignments than to ordinary M.P. assignments, drivers, etc. Occasionally, trial on the firing range was recommended, when there was doubt about the soldier's ability to tolerate the sound and handling of firearms; most of the men in this class were found fit for P.O.W. guard and M.P. duties.

Cooks, mechanics, medical department men, and others who had special training were recommended for such duties, if they seemed still suited for such work.

The following table indicates approximately in order of decreasing priority, the non-combatant work recommendations and the number of men provided:

P.O.W. Guards	734 (35 percent)
Ordinary M.P. Duty	417 (20 percent)
Trial on Range	61 (3 percent)
Drivers	196 (9 percent)
Specialties	137 (7 percent)
Others (Potential laborers, mail clerks, hospital orderlies, etc.)	540 (26 percent)
Total	2,085

A total of 2,503 men were recommended for hospitalization, with distribution as follows:

312th Station Hospital	2,094 (84 percent)
96th General Hospital	374 (15 percent)
19th General Hospital	35 (1 percent)
Total	2,503

In addition, 51 officers were examined by an informal board which consisted of the Chief of the Neuropsychiatric Service of the 19th General Hospital, and one member of the screening team. Disposition was as follows: 4 officers (8 percent) were recommended for assignment to non-combatant duty, and 47 (92 percent) for evacuation to hospitals.

6. *DISCUSSION.*

The findings presented here represent the combined observations of 9 psychiatrists working independently. The large number of patients interviewed by each member of the psychiatric team assured that each would see a representative sample of the entire group. Furthermore, it is significant that few of these observers had been previously associated and it was reasonable to expect diversity of opinion. However, a close unanimity of opinion prevailed, the disposition findings of each psychiatrist approaching the mean of the group.

Throughout the entire period of screening, close attention was paid by the examiners to the need for conserving manpower. It was clearly understood that every case which could not be significantly improved by hospitalization, should be assigned to duty within the limits of his capacity. In such cases, a definite statement was made of the type of work which the soldier could, and could not be expected to perform. There was no deterrent facing the examiner because the replacement depot which received these men gave their assurance that the medical recommendations would be respected.

It was also understood by the examiners that the soldier who required hospitalization would receive adequate treatment within the limits of the facilities of this theater.

Inasmuch as these men had been previously told that they would not return to combat there was afforded an excellent opportunity for the examiners to determine the therapeutic value of such assurance. To reinforce the possible value of such assurance these men were again told this from time to time, and again before shipment for screening. Also these men had opportunity to learn from contact with others who had already been screened, that the individual medical needs were clearly recognized, and that return to combat duty was exceptional. The very high hospitalization rate plus the limitations which had to be placed on those going to non-combatant duty clearly refutes the supposition that any such assurance was therapeutic in this group.

One of the factors handicapping improvement was the tendency of the sicker members of the group to "reinfect" others, whose symptoms appeared to be subsiding. This statement is based upon observation during present screening plus impressions

*Statistical Analysis**

Company or detachment	Det 3	(90 QM) Det 4	(96 QM) Det 4	Det 1 & 5	Co K	Co M	Co D	Co 52	Co L	Co 51	Co F	Co H	Co G	Co I	Co B	Total
Number of men	52	38	49	178	211	194	193	220	166	211	206	193	199	216	202	2,528
Age:																
20 and below	13	21	12	17	12	13	19	10	12	14	16	16	22	11	18	15
21 to 25	44	42	35	46	37	35	36	40	31	39	40	41	35	38	46	39
26 to 30	25	18	17	19	29	29	23	33	28	27	28	20	29	30	18	26
31 and over	19	18	35	18	22	23	22	17	28 (sic)	20	16	23	15	20	18	20
Rank:																
Pvt to Pfc	90	95	92	89	86	70	92	60	83	66	83	86	88	90	86	91
T/5 to Cpl	6	5	6	4	0.5	16	4	10	3	16	5	10	4	8	8	7
T/4 to Sgt	2	0	0	0	8	5	3	18	10	8	3	2	7	2	4	6
S/Sgt to M/Sgt	2	0	2	2	6	9	2	10	4	11	9	2	2	0.5	4	5
Background:																
Inferior intelligence	13	16	8	19	18	17	24	15	23	18	18	22	14	22	23	19
Neurotic traits	40	36	57	49	46	38	41	37	30	42	47	42	35	40	45	41
Psychopathic	2	0	4	6	6 (sic)	2	3	4	6	3	5	7	2	3	5	4
Stress:																
Replacement	25	26	29	30	36	25	35	26	22	26	44	38	29	28	29	31
Days in combat:																
0	0	26	16	0	0	3	0.5	5	15	0	0	2	6	0	0.5	3
1 to 10	13	3	8	18	19	14	22	10	13	11	13	17	28	13	29	17
11 to 20	23	14	12	21	19	23	19	17	17	14	17	18	13	17	18	18
21 to 30	21	52	25	24	13	12	29	16	23	18	14	11	15	17	20	8
31 to 40	8	8	16	15	7	12	20	19	13	13	9	9	13	12	18	13
41 to 50	10	0	6	13	3	13	5	13	7	9	9	10	9	15	10	11
51 to 60	4	5	6	6	14	9	2	26	13	17	12	19	14	15	1	12

Over 60	2	0	2	0.5	12	13	1	22	12	13	21	8	2	16	7	15
Wounds	6	13	6	12	16	12	9	23	22	21	16	15	9	16	7	15
Acute incidents			39									51	44		37	44
Narcosis therapy	77	76	74	87	72	86	93	63	66	75	82	79	91	82	91	80
Anxiety symptoms:																
Sleeplessness	46	42	35	55	33	45	48	55	50	61	55	47	58	65	62	52
Dreams	42	35	22	48	44	40	44	50	44	45	52	41	50	60	61	48
Startle reactions	77	68	53	76	56	61	64	70	61	61	58	60	60	60	78	64
Tremors	33	34	43	51	38	44	42	45	43	45	42	46	49	46	53	44
Tension	38	39	47	53	36	55	52	56	50	56	48	60	58	64	67	54
Emotional instability	27	26	47	36	37	32	41	44	36	37	50	48	53	45	53	42
Somatic symptoms:																
Headache	37	24	27	23	37	22	24	23	26	32	29	29	34	44	32	30
Dizziness	19	8	9	11	10	9	11	12	7	10	13	6	17	21	9	13
Dyspnea	12	13	9	8	11	8	9	11	6	9	6	6	16	15	13	10
Heart	7	24	18	8	11	7	7	11	6	13	14	6	12	16	10	10
Stomach	6	18	24	18	19	24	21	18	19	24	29	18	19	24	20	21
Urinary	4	18	4	11	16	13	16	20	5	22	18	13	21	31	16	17
Orthopedic	21	26	16	20	26	13	13	24	25	23	24	14	21	29	17	21
Weakness	13	10	14	10	14	13	12	16	7	14	11	??	18	20	18	14
Psychologic symptoms:																
Depression	6	21	12	21	24	23	?	25	17	26	31	24	32	23	38	26
Retardation	6	10	9	12	17	12	16	21	17	19	19	25	23	24	30	19
Apathy	0	3	6	4	7	5	7	5	4	6	9	6	17	13	9	7
Preoccupation	2	3	0	12	15	7	9	19	9	21	20	12	9	17	17	14
Lack of concentration	15	21	6	16	35	20	25	38	22	29	20	33	32	25	44	29
Memory defect	8	16	12	18	??	13	22	28	14	21	22	22	25	28	36	22
Confusion	6	8	2	9	21?	2	11	8	6	11	9	4	2	12	9	8
Disposition:																
Duty	92	74	67	60	58	60	55	52	52	40	38	38	37	32	29	48
Hospital	8	26	33	40	42	40	45	48	48	60	62	62	63	68	71	52

*All figures given are in percentages except those for number of men.

Remarks on

Company or detachment	Date of activation	Date of screening	Billets	Food	Work
Det 3	12 Aug 44	23 Oct 44	Hospital, quarters	Good	Litter bearer
Det 4 (90 QM)	13 Aug 44	8 Nov 44	do	do	do
Det 4 (96 QM)			do	do	do
Det 1 & 5	(1–10 Aug 44 (5–15 Aug 44	2 Nov 44	do	do	do
Co K	20 Aug 44	24 Oct 44	Permanent with showers.	do	Ordnance
Co M	24 Aug 44	14 Nov 44	Pyramidal tents with cots.	do	None for 3 weeks
Co D	10 Aug 44	15 Nov 44	do	do	Not heavy, mostly supervisory.
Co 52	29 Aug 44	4 Nov 44	do	do	Ordnance, not heavy.
Co L	21 Aug 44	2 Nov 44	do	do	do
Co 51	27 Aug 44	27 Oct 44	Small wooden huts, electric light.	do	do
Co F	23 Aug 44	25 Oct 44	Pup tents on beach	do	QM Depot
Co H	18 Aug 44	19 Nov 44	Pyramidal tents with cots.	do	do
Co G	13 Aug 44	21 Nov 44	do	do	do
Co I	19 Aug 44	12 Nov 44	Pup tents with wood base.	Fair	do
Co B	8 Aug 44	17 Nov 44	Pyramidal tents with cots.	Good	do

*Date of alert for movement for all units: on or about 10 Oct. 1944.

*Condition of Unit**

C.O.		Environment in Paris	Additional
Attitude	Health		
Good	Good		
do	do	Buzz bombs and artillery.	
do	do	Buzz bombs and aircraft.	
do	do	Buzz bombs.	
do	do	Blasting and gunfire.	
do	do	Quiet and near small town.	Frequent passes, formerly work was occupying and not heavy.
do	do	Occasional small arms fire.	Prior to 22 Sept working and living conditions extremely poor.
Combat good.	Combat exhaustion severe.	Quiet with occasional small arms fire.	Lived in adjacent fields and worked in same depot.
do	do	do	
Poor	Psychopath	do	Very high competitive spirit, marked hostility.
		Small arms fire	Until 30 Sept conditions same as Co. K. Co. then moved suddenly to beach in undesirable site.
Good	Good	Mud	
Not interested.	do	do	Muddy, in tents.
Good	Psychoneurotic and timid.	Isolated	Constantly frustrated by higher Headquarters.
do	Good	Mud	Muddy, in tents.

of a member of the group, who previously had opportunity to visit these companies from time to time. It is believed, therefore, that large occupational groupings consisting only of such men should be avoided. This impression has been confirmed by statements from soldiers fit for duty who have expressed satisfaction with being assigned to duty with a non-neurotic group.

Attention is directed to the number of psychiatric "repeaters," men who were treated apparently successfully in a forward medical echelon, returned to combat, and who then relapsed after a very short period of time and had to be evacuated a second or third time.

7. *CONCLUSIONS.*

a. Of the 4,588 enlisted men examined, most of whom had been evacuated because of "combat exhaustion" and assigned to work with Quartermaster battalions, 2,085 (45 percent) were found fit for non-combatant duties, and 2,503 (55 percent) required hospitalization.

b. Of the 51 officers examined, 4 (9 percent) were found fit for non-combatant duties and 47 (91 percent) required hospitalization.

c. These men were not significantly helped by 1 to 3 months of non-combatant work therapy.

d. Other conclusions, based upon statistical studies, have been previously discussed.

8. The above report was prepared on the direction of Colonel Lloyd J. Thompson, Senior Consultant in Psychiatry, ETOUSA, by the following members of the examining team appointed by the Chief Surgeon, ETOUSA:

Roy L. Swank, Major, MC, 5th General Hospital
Harry M. Gardiner, Major, MC, 16th General Hospital
J. Watson Harmeier, Major, MC, 58th General Hospital
Harold L. Vyner, Major, MC, 100th General Hospital
Jack R. Jarvis, Capt., MC, 2nd General Hospital
Benjamin Cohen, Capt., MC, 130th General Hospital (N.P.)
Werner Hamburger, Capt., MC, 90th General Hospital
Edward Gendel, Capt., MC, 30th General Hospital
Ludlow M. Pence, Capt., MC, MD, 211th QM Bn.

For the Board of Psychiatrists:

Incls.

J. WATSON HARMEIER,
Major, MC.

APPENDIX D

Neuropsychiatric Caseload in South Pacific Area, 1944

The statistical data presented in the tables which follow are an estimation of the neuropsychiatric caseload in the South Pacific Area, for 1944. It will be noted that individual monthly reports are not available after July 1944, probably because (1) offensive action in the South Pacific Area ceased in mid-1944 and (2) Colonel Kaufman was reassigned to the Pacific Ocean Area in August 1944.

TABLE 1.—*Disposition of 13,157 neuropsychiatric casualties,*[1] *of 91,978 casualties, South Pacific Base Command, 15 January–31 December 1944*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	3,429	54.75	3,193	46.32	3,033	53.34
Neurasthenia	198	3.16	590	8.56	148	2.60
Constitutional psychopathic state	479	7.65	544	7.89	196	3.45
Dementia praecox	459	7.33	0		416	7.32
Epilepsy	124	1.98	12	0.17	125	2.20
Enuresis	58	.93	83	1.20	77	1.35
Psychosis	540	8.62	24	.35	374	6.58
Neurological diagnosis	675	10.78	1,678	24.34	1,047	18.41
Mental deficiency	173	2.76	73	1.06	91	1.60
Neurocirculatory asthenia	87	1.39	356	5.16	141	2.48
Alcoholism	41	.65	341	4.95	38	.67
Total	6,263	47.60	6,894	52.40	[3]5,686	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

[3] Represents 25.43 percent of 22,357 total transfers.

Source: Essential Technical Medical Data, South Pacific Base Command, for January 1945, dated February 1945.

TABLE 2.—*Disposition of 3,903 neuropsychiatric casualties,[1] of 30,331 casualties, South Pacific Area, January–April 1944, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	1,133	57.69	883	45.54	1,424	61.09
Neurasthenia	48	2.44	281	14.49	57	2.45
Constitutional psychopathic state	157	7.99	79	4.07	57	2.45
Dementia praecox	155	7.89	0		153	6.56
Epilepsy	38	1.93	4	0.21	47	2.02
Enuresis	14	.71	28	1.44	15	.64
Psychosis	169	8.60	9	.46	139	5.96
Neurological diagnosis	161	8.20	482	24.86	334	14.33
Mental deficiency	45	2.29	14	.72	43	1.84
Neurocirculatory asthenia	30	1.53	93	4.80	50	2.15
Alcoholism	14	.71	66	3.40	12	.51
Total	1,964	50.32	1,939	49.68	[3]2,331	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

[3] Represents 27.00 percent of 8,633 total transfers.

Source: Essential Technical Medical Data, U.S. Army Forces in the South Pacific Area, for May 1944, dated 2 June 1944.

TABLE 3.—*Disposition of 647 neuropsychiatric casualties,[1] of 3,692 casualties, South Pacific Area, 15–31 January 1944, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	349	69.80	76	51.70	128	59.53
Neurasthenia	0		28	19.05	7	3.26
Constitutional psychopathic state	34	6.80	5	3.40	7	3.26
Dementia praecox	43	8.60	0		13	6.05
Epilepsy	11	2.20	0		8	3.72
Enuresis	3	.60	2	1.36	4	1.86
Psychosis	7	1.40	0		15	6.98
Neurological diagnosis	28	5.60	23	15.65	19	8.84
Mental deficiency	12	2.40	0		3	1.40
Neurocirculatory asthenia	7	1.40	10	6.80	10	4.65
Alcoholism	6	1.20	3	2.04	1	.47
Total	500	77.28	147	22.72	215	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

Source: Essential Technical Medical Data, U.S. Army Forces in South Pacific Area, for May 1944, dated 2 June 1944.

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TABLE 4.—*Disposition of 1,086 neuropsychiatric casualties,[1] of 8,178 casualties, South Pacific Area, 1–29 February 1944, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	292	57.82	248	42.69	246	55.28
Neurasthenia	14	2.77	122	21.00	18	4.04
Constitutional psychopathic state	33	6.53	20	3.44	11	2.47
Dementia praecox	40	7.92	0		47	10.56
Epilepsy	10	1.98	2	0.34	7	1.57
Enuresis	7	1.39	8	1.38	6	1.35
Psychosis	47	9.31	2	.34	20	4.49
Neurological diagnosis	40	7.92	131	22.55	69	15.51
Mental deficiency	11	2.18	5	.86	8	1.80
Neurocirculatory asthenia	8	1.58	23	3.96	10	2.25
Alcoholism	3	.59	20	3.44	3	.67
Total	505	46.50	581	53.50	445	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

Source: Essential Technical Medical Data, U.S. Army Forces in South Pacific Area, for May 1944, dated 2 June 1944.

TABLE 5.—*Disposition of 1,199 neuropsychiatric casualties,[1] of 9,691 casualties, South Pacific Area, 1–31 March 1944, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	315	52.07	272	45.79	519	62.38
Neurasthenia	16	2.64	69	11.62	5	.60
Constitutional psychopathic state	61	10.08	33	5.56	19	2.28
Dementia praecox	49	8.10	0		47	5.65
Epilepsy	7	1.16	2	0.34	16	1.92
Enuresis	3	.50	6	1.01	1	.12
Psychosis	63	10.41	6	1.01	68	8.17
Neurological diagnosis	64	10.58	158	26.60	120	14.42
Mental deficiency	18	2.98	4	.67	17	2.04
Neurocirculatory asthenia	7	1.16	26	4.38	17	2.04
Alcoholism	2	.33	18	3.03	3	.36
Total	605	50.46	594	49.54	832	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

Source: Essential Technical Medical Data, U.S. Army Forces in South Pacific Area, for May 1944, dated 2 June 1944.

TABLE 6.—*Disposition of 971 neuropsychiatric casualties,[1] of 8,770 casualties, South Pacific Area, 1–30 April 1944, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	177	50.00	287	46.52	531	63.29
Neurasthenia	18	5.08	62	10.05	27	3.22
Constitutional psychopathic state	29	8.19	21	3.40	20	2.38
Dementia praecox	23	6.50	0		46	5.48
Epilepsy	10	2.82	0		16	1.91
Enuresis	1	.28	12	1.94	4	.48
Psychosis	52	14.69	1	.16	36	4.29
Neurological diagnosis	29	8.19	170	27.55	126	15.02
Mental deficiency	4	1.13	5	.81	15	1.79
Neurocirculatory asthenia	8	2.26	34	5.51	13	1.55
Alcoholism	3	.85	25	4.05	5	.60
Total	354	36.46	617	63.54	839	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

Source: Essential Technical Medical Data, U.S. Army Forces in South Pacific Area, for May 1944, dated 2 June 1944.

TABLE 7.—*Disposition of 5,199 neuropsychiatric casualties,[1] of 35,048 casualties, South Pacific Base Command, May–August 1944, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	1,421	55.75	1,214	45.81	1,067	50.88
Neurasthenia	122	4.79	206	7.77	65	3.10
Constitutional psychopathic state	215	8.43	189	7.13	73	3.48
Dementia praecox	150	5.88	0		174	8.30
Epilepsy	51	2.00	5	0.19	62	2.96
Enuresis	29	1.14	25	.94	49	2.34
Psychosis	159	6.24	10	.38	143	6.82
Neurological diagnosis	275	10.79	651	24.57	361	17.22
Mental deficiency	82	3.22	34	1.28	36	1.72
Neurocirculatory asthenia	28	1.10	173	6.53	53	2.53
Alcoholism	17	.67	143	5.40	14	.67
Total	2,549	49.03	2,650	50.97	[3] 2,097	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

[3] Represents 32.66 percent of 6,421 total transfers.

Source: Essential Technical Medical Data, South Pacific Base Command, for September 1944.

TABLE 8.—*Disposition of 1,254 neuropsychiatric casualties,[1] of 9,726 casualties, South Pacific Base Command, 1–31 May 1944, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	307	52.66	328	48.88	367	54.78
Neurasthenia	25	4.29	58	8.64	19	2.84
Constitutional psychopathic state	58	9.95	28	4.17	13	1.94
Dementia praecox	38	6.52	0		36	5.37
Epilepsy	10	1.72	2	0.30	9	1.34
Enuresis	5	.86	7	1.04	20	2.99
Psychosis	45	7.72	6	.89	46	6.87
Neurological diagnosis	66	11.32	158	23.55	124	18.51
Mental deficiency	17	2.92	8	1.19	8	1.19
Neurocirculatory asthenia	6	1.03	50	7.45	24	3.58
Alcoholism	6	1.03	26	3.87	4	.60
Total	583	46.49	671	53.51	670	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

Source: Essential Technical Medical Data, South Pacific Base Command, for September 1944.

TABLE 9.—*Disposition of 1,197 neuropsychiatric casualties,[1] of 8,681 casualties, South Pacific Base Command, 1–30 June 1944, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	335	57.26	253	41.34	249	55.33
Neurasthenia	30	5.13	65	10.62	15	3.33
Constitutional psychopathic state	50	8.55	36	5.88	8	1.78
Dementia praecox	19	3.25	0		36	8.00
Epilepsy	11	1.88	0		19	4.22
Enuresis	4	.68	7	1.14	15	3.33
Psychosis	23	3.93	1	.16	21	4.67
Neurological diagnosis	82	14.02	176	28.76	68	15.11
Mental deficiency	21	3.59	7	1.14	6	1.33
Neurocirculatory asthenia	5	.85	43	7.03	9	2.00
Alcoholism	5	.85	24	3.92	4	.89
Total	585	48.87	612	51.13	450	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

Source: Essential Technical Medical Data, South Pacific Base Command, for September 1944.

TABLE 10.—*Disposition of 1,563 neuropsychiatric casualties,[1] of 9,065 casualties, South Pacific Base Command, 1–31 July 1944, by category*

Category	Evacuation to United States		Return to duty		Transfer	
	Number	Percent [2]	Number	Percent [2]	Number	Percent
Psychoneurosis	527	60.57	324	46.75	314	49.14
Neurasthenia	59	6.78	52	7.50	25	3.91
Constitutional psychopathic state	71	8.16	58	8.37	21	3.29
Dementia praecox	38	4.37	0		64	10.02
Epilepsy	16	1.84	1	0.14	18	2.82
Enuresis	13	1.49	5	.72	11	1.72
Psychosis	44	5.06	0		51	7.98
Neurological diagnosis	68	7.82	164	23.67	111	17.37
Mental deficiency	22	2.53	6	.87	11	1.72
Neurocirculatory asthenia	11	1.26	42	6.06	11	1.72
Alcoholism	1	.11	41	5.92	2	.31
Total	870	55.66	693	44.34	639	

[1] Total number of neuropsychiatric cases are estimated on the basis of patients evacuated to the United States and those returned to duty. The patients transferred from hospital to hospital are eventually picked up in one or the other category. Transfers are tabulated in order to obtain an estimate of the total admissions, and to evaluate the need for psychiatric and transportation facilities.

[2] The percentages indicate the proportional distribution of the patients according to diagnostic group. The percentages for the totals give the proportions of all the patients who were returned to duty or evacuated to the continental United States.

Source: Essential Technical Medical Data, South Pacific Base Command, for September 1944.

TABLE 11.—*Relation of incidence of neuropsychiatric disorders, to South Pacific Area strength, based on disposition of neuropsychiatric cases, 15 January–31 December 1944*

[Rate expressed as number of cases per annum per 1,000 average strength]

Month ending—	Strength	Total neuropsychiatric cases		Psychoneurosis		Psychosis		Constitutional psychopathic state/alcoholism		Mental deficiency		Neurological		Other	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
31 Jan	203,500	647	68.3	470	49.6	50	5.3	48	5.1	12	1.3	51	5.4	16	1.7
29 Feb	224,545	1,086	60.9	707	39.6	89	5.0	76	4.3	16	.9	171	9.6	27	1.5
31 Mar	242,028	1,199	58.3	705	34.3	118	5.7	114	5.5	22	1.1	222	10.8	18	.9
30 Apr	230,742	971	51.2	586	30.9	76	4.0	78	4.1	9	.5	199	10.5	23	1.2
31 May	225,392	1,254	65.5	774	40.4	89	4.6	118	6.2	25	1.3	224	11.7	24	1.3
30 June	191,555	1,197	76.0	731	46.4	43	2.7	115	7.3	28	1.8	258	16.4	22	1.4
31 July	130,206	1,563	141.3	1,015	91.8	82	7.4	171	15.5	28	2.5	232	21.0	35	3.2
31 Aug	129,042	1,185	108.1	644	58.7	105	9.6	160	14.6	35	3.2	212	19.3	29	2.6
30 Sept	121,266	1,354	135.8	751	75.3	133	13.3	160	16.0	31	3.1	245	24.6	34	3.4
31 Oct	113,089	973	101.1	523	54.3	88	9.1	136	14.1	20	2.1	187	19.4	19	2.0
30 Nov	112,126	888	96.4	466	50.6	79	8.6	123	13.4	10	1.1	194	21.1	16	1.7
31 Dec	90,439	840	109.3	481	62.6	71	9.2	106	13.8	10	1.3	158	20.6	14	1.8

Source: Essential Technical Medical Data, South Pacific Base Command, for January 1945, dated February 1945.

APPENDIX E

HEADQUARTERS USAFISPA

Office of the Chief Surgeon

APO 502

18 FEBRUARY 1944

Medical Circular Letter No. 17.
SUBJECT: Neuropsychiatric Patients.

1. Experiences in this war indicate that the early recognition and treatment of neuropsychiatric conditions in the combat zone (S.G.O. Circular Letter 176, 1943) is the most efficacious technique for the handling of acute neuropsychiatric problems. The further to the rear these patients are sent, the less likelihood there is of being able to rehabilitate them. This necessitates the setting up of adequate facilities for such treatment within the combat area, where the soldiers should be screened and treated. The technique for such treatment is set forth in S.G.O. Circular Letter 176, 1943. It has been found possible to keep many soldiers in the Clearing Station or Field Hospital for treatment for as long as 10 to 14 days, and then return them to active combat duty. In some instances, reassignment to a non-combat echelon within the combat team has been possible, and has resulted in the full utilization of manpower. A certain number of patients, especially those with a diagnosis of psychosis or severe psychoneurosis, need to be evacuated. A careful differential diagnosis, in terms of the soundness of the underlying personality, as indicated in S.G.O. Circular Letter 194, 1943, is necessary.

2. Those patients who are to be evacuated to the United States, because they have no further value to the service in this area, should be sent only as far as the first island or island base, from which base such evacuation can take place. Certain hospitals on that base should be designated to receive such patients in the line of evacuation. They should be treated symptomatically; and attempts should be made at rehabilitation for eventual discharge from the service, and to prepare them for useful civilian work in the war effort.

3. Every endeavor to avoid evacuation from island to island should be made, and only under exceptional circumstances, such as pressure of bed space, should patients be evacuated to the rear. When, for other medical indications, treatment is necessary in a temperate zone, such patients may be evacuated to the appropriate hospital. Such patients should be treated according to the techniques described in S.G.O. Circular Letter 176, 1943.

4. Convalescent care is of extreme importance. The broad principles of such treatment are laid down in S.G.O. Circular Letter 168, 1943.

5. It is recognized that an extremely important element in the neuropsychiatric conditions is the factor of morale. An integrated program centering around morale-building should be part of every hospital routine. Full use should be made of the Psychiatrist, Special Service Officer, Chaplain and the Red Cross. Such coordinated teams have already been set up in many of the hospitals in this area * * *.

6. W.D. Circular 293, 1943, makes it mandatory that manpower be utilized to the fullest extent. S.G.O. Circular Letter 194, 1943, states that no soldier should be discharged merely because he has a neuropsychiatric diagnosis. To achieve the spirit

of these directives, an aggressive therapeutic program, correlated with painstaking reclassification and reassignment, is necessary.

7. Particular attention should be paid to those morale factors which will increase the soldier's will to fight.

EARL MAXWELL,
Brigadier General, USA,
Chief Surgeon.

APPENDIX F

Informational Report of Psychiatric Screening, 43d Infantry Division

During the recent rest period, psychiatric screening of the 43d Infantry Division was accomplished. The work was outlined by Lt. Col. M. Ralph Kaufman, MC, Neuropsychiatric Consultant, USAFISPA. A psychiatric screening board was formed at the direction of the Division Surgeon. Two additional medical officers interested in psychiatric problems were temporarily assigned to the division: Capt. (later Maj.) William H. Kelly, MC, from the 37th Station Hospital and Capt. David Crocker, MC, from the 39th General Hospital. Capt. (later Lt. Col.) John Mohrman, MC, represented the 43d Infantry Division.

The plan of work was as follows: Division and unit officers were given preliminary lectures to orient them with the importance of psychiatric screening and to acquaint them with the type of individual in whom might be found any of the psychiatric problems. Lists of these individuals were then submitted by company officers, assisted by medical and personnel officers. Interview was requested with all men previously diagnosed as "War Neurosis." Personal informal interviews were held with several officers referred to the board. After interview a conference with the referring officer was held and the men recommended for disposition in either one of four ways:

A. Return to duty.
B. Reclassification and reassignment with the division.
C. Reassignment outside of the division.
D. Hospitalization.

A total of 445 (approximately 3.5% of the command) were studied on the original survey * * *.

Disposition was recommended as follows:

A. Return to duty	147
B. Reclassification and reassignment within the division	84
C. Reassignment outside division	187
D. Hospitalization	27
Total	445

Because of existing lack of vacancies in the services many men mentioned in B above must ultimately be reclassified and reassigned outside of this division. In a new organization, reassignment to services from strictly line units is possible; however, in a division long on active duty, every effort has already been made to place ineffective infantry men by personnel officers. There are few division services that have not already absorbed many men in the past and are up to their allowed strength now. In the services, there are a few assignments that do not require maximum physical exertion; however, these assignments require men of special training and qualifications. It was possible to follow all cases hospitalized and keep in constant touch with their status at the 39th General Hospital through Capt. (later Maj.) Wilbur D. Johnston, MC, 43d Division liaison officer. Cases recommended for further psychiatric study at the 39th General Hospital were disposed of through medical channels.

Of the men returned to duty most were medical problems with no marked emotional components; others had mild problems that could be adequately treated by unit

surgeons, with the cooperation and understanding of unit commanders. The majority of the men referred were grateful for the opportunity to discuss their problems with the board members. The board seemed to answer a particular need of many men and officers who had personality problems. Additional cases are now being referred by many units.

Of the cases referred because a diagnosis of "War Neurosis" had been made previously, many were returned to duty. It is the opinion of this board (which confirms the impression of medical officers on duty in the recent campaign) that many cases diagnosed as "War Neurosis" were primarily exhaustion and fatigue cases, who might have been salvaged had facilities been available.

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Many men, especially in the 169th Infantry Regiment, stated they were broken in rank because of evacuation of "War Neurosis."

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Illness alone of any kind does not justify loss of rank. An explanation pointing out that a soldier proven ineffective in situations where most others were able to carry on would be disqualified for a position of leadership might help this situation. A better understanding of the problem is indicated. This board recommends that no diagnosis of war neurosis be made in forward echelons during combat and no reduction of rank allowed for this cause alone. Recommend further that unit commanders be requested to explain cause of reduction when such action is necessary.

Various factors which occurred in a number of cases, contributing to poor behavior and performance are cited.

Poor material, both constitutional and mental, was found. The basic unit in an infantry unit is the infantry soldier. Regardless of the excellence of leadership, training, and medical care, an efficient soldier cannot result from poor material. The need for rapid mobilization left little time for selection of personnel. The result was that many men were inducted who were not good material for infantry soldiers, and elimination of them from combat units is recommended.

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Dissatisfaction is found in some men assigned to the infantry. Enticed by the glamour and encouraged by official requests for personnel by the Air Corps, a number of men seek transfer. After filling out many forms, undergoing examination, interviews, and weeks of waiting, almost all are apparently found not qualified. This brings about a feeling of frustration and inadequacy and impairs the efficiency of fundamentally good men from then on. This was found both in officers and in men.

A parallel situation is found in Officers' Candidate School students. Our outstanding enlisted men, of proven value, are carefully selected and sent to school. Unofficial reports indicated that about one in ten graduate (MAC [Medical Administrative Corps]). The remainder carry a stigma of failure which many will be unable to overcome.

This board recommends that all candidates for transfer to another branch of the service be referred to a personnel officer of at least field grade for consultation before completing application for transfer to another branch of the service. The fact should be frequently emphasized that the Infantry is Queen of Battle which other branches of the service merely assist.

Isolation from a group lowers morale and provides a setting in which mental illness may develop.

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This division came on active duty as a National Guard Unit, largely from one section of the country. Some units may tend to over emphasize this fact. Recommend that ranking commanders point out that history of the component units dates back to colonial days, and while the division is justly proud of its one time identity and splendid record as a National Guard Unit, it is now composed of not only National Guard

personnel, but also of Reserve, Regular Army, selectees, and volunteers from all States; one group with one purpose all serving as part of the Army of the United States.

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Recommend appointment of a permanent Division Reclassification Board consisting of one or more line officers, one or more personnel officers and the division neuropsychiatrist in accordance with WD Circular #290, dated 9 November 1943. Screening and reassignment will then be a continuous process.

Excessive and continued use of alcoholic beverages preclude the usefulness of any individual in an infantry division. Treatment is unsatisfactory and prognosis poor. Such cases were recommended for reassignment outside of the division.

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Discontent was found in both officers and enlisted men because of the relative high rank of replacements and the subsequent loss of vacancy for promotion. This is probably unavoidable. It is the opinion of this board that this might not develop if the men know that normal attrition over a period of time develops more vacancies than replacements filled. Other forms of recognition are of definite value in counteracting this situation, such as verbal or written commendation for work well done.

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Psychoses involving the entire personality should be eliminated at once. This is best accomplished through medical channels.

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Social-economic problems reduce a soldier's efficiency.

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In such a situation the individual concerned may not be able to grasp expert legal advice given him. Recommend that a responsible officer supervise all such problems in his battalion and follow them until the problem is solved.

Experience in the North African campaign reported by Lt. Col. [Roy R.] Grinker [MC] shows that men who have reacted to stress and strain of civilian life with illness of psychogenic origin have no place in combat troops. "It can be categorically stated that any man who has had functional somatic complaints in civilian life will experience a recrudescence of symptoms in a much more malignant form on exposure to battle conditions."

* * * * * * *

Summary: It has been a privilege to screen from a psychiatric point of view a division where the criterion of actual performance was available in the evaluation of men. In general, it is the opinion of this officer that the men and officers of the 43d Infantry Division are well-trained, experienced; with explicit confidence in their leadership resulting in a high morale. Recommendations were submitted for consideration in the effort to prevent settings in which illness of psychogenic origin might develop.

The most important step in further increasing the potential effectiveness of this division is the elimination of the men recommended for reassignment outside of the division. If this effort fails, this group should be retained in a rear echelon. Line officers would prefer to enter action understrength rather than be burdened with ineffective soldiers. An ineffective soldier keeps morale of his group at a constant low ebb. In combat, panic is contagious and spreads like wildfire, disrupting entire companies. Men who will surely break in combat do not belong in infantry divisions. They are a constant problem to line officers, retard training, fill sick books, clog evacuation lines and occupy needed hospital beds. All division personnel are potentially frontline soldiers. In island warfare there are no safe rear areas.

APPENDIX G

War Neuroses—Report by Col. Frank T. Hallam, MC, XIV Corps Surgeon

1. GENERAL

The most serious medical problem encountered in the New Georgia operations was the relatively high incidence of mental disturbances, coming under the general classification of "war neuroses," a misnomer in most instances, but of medical importance, since practically all cases of combat fatigue, exhaustion states, and "war-weariness" were erroneously directed or gravitated through medical channels along with the true psychoneurotics and those suffering with a temporary mental disturbance, currently termed "war neurosis."

As Corps Surgeon, I had the opportunity of observing the reception of these individuals at Guadalcanal, where they had been evacuated during the first 2 weeks of the campaign. At that time, it was impossible to gain more than a fragmentary account as to conditions in the New Georgia area to which had been precipitated the mass evacuation of large numbers of noneffectives diagnosed "war neurosis." Upon my arrival in the New Georgia area with the forward echelon, XIV Corps, and upon taking over as Surgeon, New Georgia Occupation Force, I was confronted with the problem of determining the causes for the high incidence of mental disturbances, and to attempt to institute measures which would tend to bring to a minimum the apparent waste of manpower through the mass evacuation of individuals erroneously classified as "war neuroses."

This report will show the incidence of mental conditions among troops in this area, problems encountered, remedial measures instituted, remarks on probable causative factors as gathered from questioning medical officers, line officers, noncommissioned officers and enlisted men, and information gathered from personal observations in studying the situation. My remarks are limited to reporting conditions as I found them and my personal views on the situation, rather than to attempt to view the subject from a purely psychiatric standpoint.

2. INCIDENCE

The statistical data on the incidence of mental disorders and diseases, coming under the general classification of "war neuroses" among the troops during the campaign are approximate only, due to factors beyond our control. At times, especially during the first 2 weeks of the campaign, accurate casualty reports were lacking, due to the fact that many individuals were evacuated by water, without having been cleared through local medical installations, meager as they were. Later, when positive measures had been taken to correct causative factors, it was apparent that many borderline cases were evacuated through medical channels under other diagnoses, in order to cover up the apparent incidence of the disease. In some instances, individuals from one division were admitted and cleared through medical installations of another division, and the division of origin did not include these cases in its reports. For these reasons, it may be seen that the accuracy of reports must be questioned, and the figures in this report will be an estimate based on a study of all available data.

It is estimated that approximately 2,500 individuals were admitted to medical installations in this area with diagnoses placing them in the general classification of "war neuroses," during the period 30 June to 30 September 1943. Of these, about 1,950, or 79 percent, occurred in the 43d Division; about 150, or 6 percent, occurred in the 25th

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Division; and about 200, or 8 percent, in Navy and Marine units. In the 3-month period, about 1,750, or 70 percent, occurred in the first month (July); about 650, or 26 percent, occurred in the second month (August); and the remainder, 100, or 4 percent, during the third month (September). During the period from 30 June to 31 July, the 43d Division contributed 1,550 cases, or 62 percent of all "war neuroses" encountered for the entire force during the entire operations. About 1,500 of the cases came from the three infantry regiments of the 43d Division, with 700 from the 169th Infantry, 450 from the 172d Infantry, and 350 from the 103d Infantry.

Bearing in mind that the 43d Division strength was about 12,000, or 40 percent of the 30,000 strength of the force, and contributed almost 80 percent of the total number of cases, 62 percent occurring in a 1-month period, it can be seen that we were particularly interested in what happened in the three infantry regiments of the 43d Division, particularly the 169th Infantry, during the period 30 June–31 July. The comments on these units for this period will serve to explain, with few exceptions, the high incidence of "war neuroses" as it was encountered during the operations.

It is believed that many cases occurring in units other than the 43d Division were the result of the "infectious" aspect of the condition spreading to these units, which were attached to or in proximity to units of the 43d Division.

A study of one thousand cases, from all units, and based entirely on data from evacuation lists, gave information of interest. In the three infantry regiments of the 43d Division, "war neurosis" was given as the cause for evacuation in all units, excepting none. It was found that those units in which officers of company grade and noncommissioned officers had been evacuated because of "war neurosis," the total number evacuated from each company or similar unit was in direct proportion to the number of unit leaders evacuated. This gave us the first tangible evidence that incompetent or questionable leadership in small units was an important causative factor. This was borne out by information gathered by me from commanders of all grades, and from enlisted personnel, of all grades, and from enlisted personnel of units involved as well as from units relatively free from the condition.

The incidence of the condition was decidedly low in field artillery, engineer, quartermaster, signal and reconnaissance units of the division; Navy boat pool crews, air warning units, Marine defense battalions; and service units as a whole. Navy construction battalions were relatively free from "war neurosis," excepting during or immediately after periods of heavy bombings with resultant casualties. Medical units, particularly those attached to the infantry regiments of the 43d Division, had lower incidence than the units which they were covering.

3. CAUSATIVE FACTORS

(a) General.—In attempting to arrive at the causes for the extremely high incidence of mental disorders, requiring medical attention, it was found that there were many contributory factors, any one or a combination of two or more responsible for the widespread condition. The basic causative factors and the precipitating causative factors will be considered on the basis of the entire group, without particular attention to the underlying medical factors which were undoubtedly associated with those belonging in the truly psychoneurotic classifications. These medical entities will be covered in another part of this report, pertaining to the medical aspects of the disorders.

(b) Basic causative factors:

(1) Leadership in small units.—It is believed that there was a definite indication that leaders of small units, on the whole, did not demonstrate the inherent qualities which should be required of leaders. This was demonstrated by the fact that unit leaders were not able to instill confidence in their men nor to control the wave of "infectious" hysteria which seemed to permeate a unit when one or more men showed signs of breaking. In other instances, the junior officers or the noncommissioned officers were the first to "break," and a needless sacrifice of manpower resulted from others

becoming "panicked" at the realization that their leaders were no longer able to direct or lead them. A study of evacuation lists, showing the name, grade, unit, and diagnosis of 1,000 individuals evacuated to the rear, showed that the largest number was from where officers and noncommissioned officers had "broken."

For example, in one infantry company, of average composition and having similar combat exposure to other similar units, a second lieutenant, five sergeants, and four corporals were evacuated, taking with them a total of 36 privates or privates first class, a total of 46 of the entire company. Another company of the same battalion, under similar conditions, lost a total of 11 men, two of these carrying the rating of corporal or corporal technician. An antitank company lost 35 men, of which number there were one second lieutenant, two staff sergeants, one sergeant, and six corporals. One medical detachment lost one medical officer, two sergeants, three corporals, plus seven privates. This may be compared to the medical detachment of an adjacent regiment, where only four privates were evacuated, there being no officers or noncommissioned officers of this unit so affected.

In discussing leadership of small units with personnel of all grades, or in overhearing casual conversations and remarks on the same subject, I gathered some interesting information. The consensus was that many unit leaders were not aware of their responsibilities as leaders, had failed to gain the confidence of men under them, or had failed to knit together a smoothly organized unit capable of operating as such. In other instances, particularly in sections and squads, a second-in-command or an understudy had never been designated. It is not difficult to understand why men "broke" in such unit, when they were placed "on their own" with no leader. Another interesting point was brought up frequently. This pertained to the extrovert type of individual, made a noncommissioned officer and small unit leader because of his pleasing personality, affability, and ability to influence men under him, inspiring confidence and respect. These are excellent attributes of leadership, but resulted unfavorably when this "leader," under stress and strain, broke because of his own emotional instability. Many extroverts are such because of a defensive mechanism which serves to cover up an inferiority complex or an emotional instability. The principal lesson to be learned from this is that in the selection of noncommissioned officers, more attention should be paid to picking individuals who are not only "fair weather" leaders, but who also demonstrate the qualities of leadership under stress and strain.

Another fact which tends to prove that poor leadership definitely contributed to the excessive incidence of "war neurosis" was brought out when a shifting of competent officers and noncommissioned officers to "infected" units took place, the incidence of mental disturbance dropped promptly. When commanders of all grades were made cognizant of their responsibilities by higher authority, corrective action was taken, and our problem was practically solved.

(2) Orientation.—The lack of proper orientation probably contributed to the prevalence of mental disorders and "breaks." A soldier needs to know what is going on, what is expected of him, what he may expect to encounter, and must have a definite objective goal. Without these, he is an automaton, with no general interest in the efforts of his unit, and entirely unprepared when the unexpected or the unexplainable happens. Without proper orientation, he is more prone to absorb wild rumors, loose talk, misinformation, resulting in constant mental stress and confusion. This gives a perfect setup for mental break, needing only a precipitating causative factor to light the spark.

(3) Discipline.—Well-disciplined troops are not as prone to go berserk, become "infected" with mass hysteria, or to be at a loss as to what to do when under stress or strain, as those who are lax or less thoroughly disciplined. Reports from various individuals in the course of my studies would indicate that in some units, it was noticed that the "troublemakers," "malcontents," and those who had been "problem" cases for some time were among the first to go to pieces, even though it was believed that many

were taking advantage of the situation to be evacuated to the rear as actual "shirkers" rather than true mental cases.

(4) Physical fitness.—Island and jungle warfare demands that troops be physically fit, prepared to perform the most arduous and strenuous duties in combat, calling on their physical reserve at times when adequate rest and sleep cannot be had. It is quite likely that a lack of physical fitness contributed to the high incidence of "war neuroses," by making some individuals more susceptible to the precipitating causes of the condition.

There is a tendency for certain officers, noncommissioned officers, and those engaged in office or clerical work to allow themselves to become physically soft and flabby. These individuals broke under stress and strain. It is interesting to note that those individuals with borderline physical defects, consisting principally of eye, teeth, joint, weight, and feet defects, did not break, but did some of the best fighting. It seems that these individuals realized that they had a physical defect which handicapped them to a certain extent and they had an additional incentive to make good, demonstrating that achievement or success is often gained by overcoming physical handicap, if there is incentive and a "will to win." One division, although saturated with malaria after 8 to 10 months in the Solomons, with an estimated combat efficiency of approximately 40 percent, because of lowered physical fitness, did not have an excessive incidence of "war neurosis." This division, the 25th, had been "blooded" during the Guadalcanal Campaign [7 August 1942–21 February 1943], and was better prepared to meet combat conditions than divisions going into their first combat.

(c) Precipitating causative factors:

(1) General.—Among those individuals with a medical background which would indicate that they were unable to stand the stress and strain of combat, as well as those who influenced by any or all of the causative factors enumerated in (a) above, all that was needed to render them noneffectives diagnosed as "war neurosis" was one or more of the precipitating causative factors listed below. Our experience was that a considerable number of "war neurosis" cases accompanied or followed shortly after exposure to these precipitating causative factors.

(2) Combat fatigue.—Probably the largest percentage of cases of "war neuroses," erroneously diagnosed as such, occurred in individuals who were completely exhausted, both physically and mentally. I believe that 50 percent of the cases among troops in combat should have been diagnosed as "combat fatigue" without any reference to "war neurosis." Another 20 percent were undoubtedly borderline cases, in which fatigue and exhaustion contributed to the chain of symptoms. This was demonstrated by the fact that removal of these individuals to a place where they could obtain 3 or 4 days' rest, a bath, and nourishing food, resulted in complete recovery in approximately 75 to 80 percent of the cases.

(3) Enemy action.—The Japanese propensity for sending out small patrols, infiltrating our lines, and cutting our lines of communication served the purpose of harassing our troops, adding to the mental stress and strain of troops already exhausted from combat and a loss of sleep. The repeated night bombings, especially over important supply installations, beaches, bivouac areas and other military objectives, with resultant casualties, tended to cause some break. The fear or anxiety caused by repeated or prolonged anticipation of personal injury created a mental strain or tension which gradually wore some down to a state of mental or nervous exhaustion, requiring medical attention, and frequently diagnosed as "war neurosis."

(4) Noises.—It was not found that the noise of gunfire, exploding bombs or shells, precipitated many episodes of "war neurosis," nor that those so diagnosed were made worse by these noises. This, in itself, tended to show that the conditions we encountered were somewhat different from the "shellshock" of World War I, when ad-

ditional exposure to these sounds precipitated paroxysms of severe fear and anxiety states.

On the other hand, the noises which caused us the most trouble were the confusing but ever-present jungle sounds, the whispering breezes through the trees, the crackling limbs, the whistling birds, the clatter caused by land crabs, and the numerous night sounds which are often misinterpreted as indicating that the enemy is near and that danger is present. The basic training of every soldier should include the recognition and proper evaluation of jungle sounds at night. The failure of a soldier on the alert to recognize these sounds will result in wild fantastic misconceptions, often resulting in defensive actions which only add to confusion and alarm within our lines. There were many instances where this caused men to break, screaming and running from imaginary danger. Others, under the same tension, hearing the screaming and commotion, would visualize the Japs in our lines, killing our men in their foxholes. This nightly occurrence added to the numbers of those gravitating through medical channels as "war neurosis." It can be seen that competent leadership, adequate orientation and training, excellent discipline, and the best mental and physical fitness were essential to counteract these influences.

(5) Mass hysteria.—Any one or a combination of the above-mentioned factors which tended to precipitate the occurrence of mental breaks among troops, at times resulted in "mass hysteria" and utter confusion. The "infectiousness" of such stampeding influences is apparent, and every effort must be made to remove the noneffective from the scene and to restore orderly behavior among the remainder.

4. CLINICAL ASPECTS

(a) General.—These remarks will not cover the neuropsychiatric aspects of the condition from the standpoint of attempting to classify the various types of disorders scientifically, but will cover the salient features brought out in a cursory study of the patients, and interesting trends as noted by casual observation and questioning of those affected.

(b) Symptoms.—At least 50 percent of these individuals, requiring medical attention or entering medical installations, were the picture of utter exhaustion, face expressionless, knee sagging, body bent forward, arm slightly flexed and hanging loosely, hands with palms slightly cupped, marked coarse tremor of fingers, an approximation of the "pill-rolling" seen in Parkinsonian states, feet dragging, and an overall appearance of apathy and physical exhaustion. About 20 percent of the total group were highly excited, wringing their hands, mumbling incoherently, an expression of utter fright or fear, trembling all over, startled at the least sound or unusual commotion, having the appearance of trying to escape impending disaster. Another 15 percent showed manifestations of the various types of true psychoneurotic complexes. The remaining 15 percent included the anxiety states and those with various bizarre somatic disturbances. These were the individuals whose symptoms were of insidious onset, starting with insomnia, vague digestive symptoms, bad dreams, frequency of urination, irritability, diminished ability to concentrate, and a generally reduced efficiency in the performance of assigned duties.

At least 50 percent of the entire group were definitely cases of "combat fatigue" and should have been diagnosed as such, rather than called "war neurosis." This was borne out by the fact that after 24–48 hours in a clearing station, followed by 4 to 6 days in a rest camp, they were sufficiently recovered to return to their units. Those who exhibited signs of agitation or excitement, with or without symptoms of emotional instability, did not react as favorably under conditions in rest camps. They required considerable sedation and many were evacuated to the rear for further study.

With the exception of the true psychoneurotics and those whose somatic disturbances had developed over a period of time, practically all gave a history of being perfectly well until 1 to 3 hours before their acute symptoms developed. The transition

from normal to a condition requiring medical attention, in practically every case, included a brief amnesic state, described as a fainting attack, a temporary loss of consciousness, "things going black," disorientation, confusion, or even mild convulsions. Most of them reported that the last they remembered was an explosion, or shock and concussion from an explosion of a shell or bomb. Strange to say, however, not one showed external evidence of injury, excepting those with temporary pseudoparalyses, loss of speech, sight, and hearing. Physical examination of these signs of injury showed no unusual findings.

Even though the anxiety states were common, marked depression was not found. Many were dejected, but not depressed. No cases were reported in which there were attempts at self-destruction, and evidence of self-inflicted injuries is believed to be exceedingly low, no definite instances having been proved.

There were isolated instances reported in which an officer or noncommissioned officer, upon recovering from "combat fatigue" would be somewhat depressed at the thought that he had proved inadequate under stress and strain of combat condition.

There was no evidence of shame, self-pity, or a reluctance to face the other men in their units, when they returned to duty, particularly in those individuals who had been evacuated because of "combat fatigue." These individuals were received in their units without unfavorable reactions. On the other hand, those individuals who had shown various stages of excitement, had created confusion in the unit, or had been malingerers in the sense that they had shirked their duties, their return to duty precipitated unfavorable reactions from officers and enlisted personnel alike.

Among the true psychoneurotics, upon questioning, practically all gave a history of maladjustment, difficulties in the past, and clearly demonstrated that they were not suitable material from military service on induction. More careful screening on induction or at least prior to departure for foreign service would have eliminated many of these individuals.

The individuals suffering from "combat fatigue" and those with the milder forms of "war neurosis" were noted to retain tremors even after all other signs and symptoms disappeared.

The borderline malingerers or shirkers from duty who had gravitated through medical channels under diagnoses of "war neurosis" diminished greatly when proper steps were taken to control straggling, better sorting in medical installations was possible when actual battle casualties decreased, and last, but not least, when reports of enemy action on evacuation boats became known, these individuals cleared up promptly, not wishing to add to their difficulties a hazardous trip to the rear.

The incidence of "war neurosis" was highest when the going was "tough," and diminished appreciably when we made advances toward our objectives.

Recurrences were rare in those cases of "combat fatigue" returned to duty after rest. The borderline cases, including "shirkers," disciplinary cases, possible malingerers, all tended to be worthless whether returned to their units or placed on other details in supply installations or on the beaches.

It is interesting to note that individuals being evacuated, once they were on the small boats transporting them to the LST's [landing ship, tank] or were safely on the LST's, their symptoms subsided markedly, due, for the main part, to the mental relief of being removed from the active combat area. I have observed these individuals, among evacuees, being subjected to the terrific din of our artillery fire over their heads, without the least effect on those diagnosed "war neurosis."

The incidence of "war neurosis" among actual battle casualties was practically nil, only two or three individuals diagnosed as such among more than 4,000 casualties. This would seem to indicate that individuals who are wounded already have a solution for their mental problems, knowing that they will be removed from the factors and influences which produced the mental symptoms. The individual under stress and strain,

with his mental problems, has no solution which will allow him to get away from these influences and some of these individuals "break" resulting in a temporary solution only.

(c) Treatment.—For the most part, since most of these individuals were erroneously diagnosed "war neurosis," rest, sedation, removal to rest camp, good food, a bath and shave, clean clothes, and relief from physical or mental duties for a few days will tend to rehabilitate or salvage them for further combat duty. In the combat area, those with true psychoses or psychoneuroses cannot be cared for adequately, other than to treat them symptomatically and prepare them for removal to the rear areas.

Individuals suffering from "combat fatigue" should be removed from medical channels as soon as possible, the erroneous diagnosis of "war neurosis" changed in order that the stigma of possible mental disease or disorder be removed from their records.

To sympathize with or to ridicule any of these individuals is definitely inadvisable. The more that can be accomplished in assisting these individuals to be rehabilitated the more likely they will prove to be better soldiers after they are salvaged. The borderline cases, including the stragglers, malingerers, shirkers, and disciplinary cases, must be decided on circumstances existent at the time, and they should be removed as soon as possible from the group of true mental cases, as well as from those individuals who are suffering from "combat fatigue" only.

Individuals in rest camps should be able to relax, should have recreational facilities, and as soon as their condition permits, should be placed on light duties gradually building up their physical fitness, so that they may return to their units capable of arduous field duties.

With proper handling, approximately 75 or 80 percent of these individuals may be returned to duty. It is estimated that by instituting measures which provided more accurate diagnosis in cases showing mental symptoms, by handling the "combat fatigue" cases separately, and by correcting promptly factors which tended to increase the incidence of "war neurosis" we were able to reduce to a minimum the preventable loss of manpower during the operations. At least 1,500 to 2,000 were salvaged for further service, and there is no basis on which an accurate estimate may be made as to the number of men saved through preventive measures.

While it is admitted that the handling of this entire group would have been different if adequate facilities had been available, it must be remembered that, during the period of time when 90 percent of the cases occurred, there were no local hospital facilities, a 24-hour evacuation policy necessary because of limited clearing station facilities, a shortage of approximately 30 to 35 percent of medical officers and enlisted personnel, no neuropsychiatrist in the area, and a very limited stock of medical supplies appropriate in the proper treatment of such cases. Furthermore, this office had no part in the original planning for the medical service of the operation and my first contact with the local situation was in the midst of the "epidemic" of "war neurosis" cases. After a hurried study of the situation, corrective measures were instituted solely on the basis of trying to do the most good for the greatest number of troops, and to conserve the largest number of men in the combat units.

APPENDIX H

Checklist for Detection of Psychiatric Disorders, Southwest Pacific Area

The following form was developed and used in the Southwest Pacific Area for the early detection of psychiatric problems in soldiers who had mainly physical complaints:

MEDICAL HISTORY CHECK LIST

(Date)

(Name) , (Rank) , (Army Serial Number)

(Age) , (Months in Army) , (Months overseas)

Y	N	1.	Have you lost any weight lately?
Y	N	2.	Have you had one or more of the following diseases: Measles, mumps, small-pox, chicken pox or scarlet fever?
Y	N	3.	Has any member of your family had one or more of the following diseases: Tuberculosis, cancer, pneumonia, heart trouble?
Y	N	4.	Have you ever had an appendix operation?
Y	N	5.	Do you smoke more than a pack of cigarettes a day (when you can get them)?
Y	N	6.	Have you ever had a broken bone?
Y	N	7.	In civilian life, did you average more than 3 cups of coffee a day?
Y	N	8.	Have you ever had a venereal disease?
Y	N	9.	Have you ever had sinus trouble?
Y	N	10.	Have you ever had malaria?
Y	N	11.	Have you had much stomach trouble—such as indigestion or heart-burn, or belching or vomiting, etc.?
Y	N	12.	Have you been in Army hospitals more than twice before this?
Y	N	13.	Have you had malaria more than four times?
Y	N	14.	Have you had many headaches?
Y	N	15.	Have you been bothered with dizzy spells?
Y	N	16.	Do you have trouble with spells of diarrhea or constipation?
Y	N	17.	Have you ever had reason to worry about your heart?
Y	N	18.	Are there many foods you can't eat?
Y	N	19.	Have you been bothered by backache?
Y	N	20.	Have you had to go on sick call often?
Y	N	21.	Do you feel tired and lacking in pep most of the time?
Y	N	22.	Did you ever have a spell of throwing-up after meals?
Y	N	23.	Have you ever been troubled with shortness-of-breath or smothering spells?
Y	N	24.	Do you perspire a great deal, even when it isn't very hot?
Y	N	25.	Do you take sick easily?
Y	N	26.	Have you ever decided to exercise regularly to build yourself up?
Y	N	27.	Does your heart beat very hard at times?
Y	N	28.	Have you ever been paralyzed in any part of your body?
Y	N	29.	Do you often get airsick—or seasick?
Y	N	30.	Do you find that your nose is often stuffed-up even though you don't have a cold?

Y N 31. Did you ever lose your voice?
Y N 32. Did you ever stutter or stammer?
Y N 33. Have you ever fainted or passed-out without being hit on the head?
Y N 34. Did any part of your body ever feel like it was dead for a day or more?
Y N 35. Do you feel uncomfortable if you don't wear sun glasses on a bright day?
Y N 36. Do you often get spots before your eyes?
Y N 37. Do you get excited and tremble easily?
Y N 38. Do you have trouble sleeping?
Y N 39. Are you troubled by bad dreams?
Y N 40. Did you ever walk in your sleep?
Y N 41. Did you ever have a spell when you thought you were dying?
Y N 42. Are you the worrying type?
Y N 43. As a kid, were you considered a sissy or a mama's boy?
Y N 44. Has drinking interfered with your success in life?
Y N 45. Have you ever been put in jail or in the stockade?
Y N 46, Do you consider yourself nervous?
Y N 47. Do you feel uncomfortable when on a train or elevator or in a crowd?
Y N 48. Did you bite your nails, suck your thumb, or have other nervous habits when you were young?
Y N 49. Have you wet the bed since you started school?
Y N 50. Do you feel scared when you go up high—or cross a long bridge?
Y N 51. Do loud noises, guns, thunderstorms, or the dark bother you?
Y N 52. Does it bother you to see blood—or dead people?
Y N 53. Do you find it hard to make up your mind?
Y N 54. Was school-work hard for you?
Y N 55. Does it bother you to be stuck with hypodermic needles?
Y N 56. Before you came in the Army, did you often have spells of feeling blue or down in the dumps?
Y N 57. Have you ever talked to the Chaplain or Red-Cross worker about your problems?
Y N 58. Do Army doctors seem to have difficulty finding out what is wrong with you?
Y N 59. Have you ever felt like you were on the verge of a nervous breakdown?
Y N 60. Have you been kept from promotion by dirty-work?
Y N 61. Have you been denied your proper rights in the Army?
Y N 62. Should you be home now to straighten out family troubles?
Y N 63. Have any members of your family ever had a nervous breakdown?
Y N 64. Was your mother nervous?
Y N 65. Was your father nervous?
Y N 66. Were any of your brothers or sisters nervous?
Y N 67. Could you do more to win the war if you were back home and out of the Army?
Y N 68. Have you already done more than your share in this Army?
Y N 69. Do they seem to have the idea in your outfit that you are no good?
Y N 70. Have you had company punishment often?
Y N 71. Have you ever been court-martialed?
Y N 72. Are you prevented by censorship from telling your family how you are really treated in the Army?
Y N 73. Are you a non-commissioned officer?
Y N 74. Have you been in the Army more than six months?

APPENDIX I

Psychotic Reactions Occurring Under Wartime Conditions in New Guinea[1]

Captain Jerome D. Frank, MC, Major Edward O. Harper, MC, and *Captain Joseph Walzer, MC*

INTRODUCTION

During the last war, the problem of neuropsychiatric casualties was one of great magnitude. It was expected, therefore, that the problem would be as great if not greater in this war. From the beginning, psychiatrists in the Army as well as in civilian life have endeavored to uncover the underlying psychodynamics of these reactions in order to prevent their occurrence and to aid in their therapy. Numerous papers have appeared in the United States and abroad regarding various approaches to these psychiatric patients.

Many of these communications have attacked the difficulties of adjustment to army life which confront the psychoneurotic patient. It soon became apparent in New Guinea, however, that not only the psychoneurotic but the psychotic patients presented a tremendous problem. It is reported that the rate of evacuation to the United States for psychosis is much higher from New Guinea than from either the Mediterranean or European theater. Furthermore, the incidence of psychosis among American troops in New Guinea has consistently been twice the incidence in Australia.[2] The question quite naturally arose as to the reason for the exceptionally high incidence of psychotic reactions in this theater. The present study was undertaken to determine what additional organic and psychological factors could be operating to account for this marked difference.

After observing these patients, the clinical pictures they presented became a matter of real interest. As many observers have pointed out, most of the psychoneurotic reactions of wartime are similar to those of civilian life. Many of the psychotic reactions seen, however, presented certain clinical features which made it difficult to place them into the diagnostic categories used in civilian practice. It was felt, therefore, that an accurate description of these reactions would help to clarify our understanding of psychoses in the Armed Forces.

II. METHOD OF STUDY

This report is based on the study of 50 psychotic patients admitted to the Fourth General Hospital between September 1st and October 15th, 1944. Patients were selected for study directly on admission to the closed psychiatric wards without knowledge of their clinical pictures or transfer diagnoses. Careful histories were taken and thorough physical, neurological, and laboratory examinations were carried out. White counts, hemoglobin levels, serum protein, malaria smears and blood Atabrine levels were obtained on all patients. Special studies such as sedimentation rates, spinal fluid examinations, X-rays, and so forth were done when indicated. Because the question of

[1] From the Neuropsychiatric Section, Fourth General Hospital, APO 322.

[2] Personal communication, Neuropsychiatric Consultant, Southwest Pacific Area.

"atabrine psychosis" has been frequently raised, an effort was made to determine whether this drug contributed in any measure to the production of these reactions. In one-half of the patients the maintenance dose of Atabrine was continued, in the others Atabrine was stopped on admission and suppressive doses of quinine substituted. After 16 days, quinine was discontinued and these patients put on full therapeutic doses of Atabrine. Blood Atabrine levels were obtained on all patients at regular intervals, in order to determine whether symptomatology paralleled blood Atabrine level in any way.

Electroencephalograms were obtained on all sufficiently cooperative patients, and psychometric examinations performed on those cases in whom there was a question of mental deficiency.

To supplement the clinical data, a questionnaire covering general difficulties of army adjustment and special hardships likely to be present in this area was given to fifty cooperative psychotic patients. As a control, the same questionnaire was given to 100 unselected nonpsychotic patients in the other departments of the hospital, and the answers of the two groups compared.

III. CLINICAL PICTURE

A. *Diagnostic Classification.*

The classification of these patients into diagnostic categories proved difficult. Many patients fell into the group of schizophrenic reactions. They showed characteristic disturbances of emotionality and thinking together with the hallucinatory and delusional phenomena. Many others, while manifesting some of these features, seemed sufficiently different from the usual schizophrenic patient to justify their being placed in the separate category of "psychosis undiagnosed." The symptomatology of the group was protean. The common characteristics were apparent superficiality and short duration of the psychotic upheaval, together with the high recovery rate. Considering the present state of our knowledge of the underlying psychodynamics of these conditions, it seemed wiser to use this diagnosis rather than to force these cases arbitrarily into a specific reaction type. Many of them would be classified by others as panic states or schizophrenic conditions. The term "psychosis unclassified" was used to designate psychoses developing in constitutional psychopathic personalities.[3]

A few cases were typical manic depressive psychoses, manic type, and are so classified. The number of patients falling into each of these categories is shown in Table I.

TABLE I: DIAGNOSTIC CLASSIFICATION

Diagnostic Category	*Number*
Schizophrenia (all types)	27
Psychosis Undiagnosed	16
Manic-depressive psychosis, Manic Phase	4
Psychosis Unclassified	3
Total	50

B. *Course and Recovery Rate.*

Although, as one would expect, the symptomatology of this group of patients was most variable, the striking thing was the number of features they had in common. The onset was usually characterized by gradually mounting tension which culminated in an

[3] This usage is recommended in SGO Circular Letter No. 12, 1942.

acute episode. Thirty-four cases showed this type of onset. Only 8 seemed to erupt into a psychotic episode without warning. Eight patients gradually slipped into a psychotic state.

Other common features of these reactions were the brief course and the large proportion of recoveries. Although there was in some cases a certain amount of residual uneasiness, tremulousness, or loss of self-confidence, a patient was considered to be recovered if no evidence of psychosis could be found. At the end of a three to eight week period of observation, 13 patients were recovered, 17 improved, and 20 unchanged. The presence or absence of overt anxiety did not appear to have any prognostic significance over the period of observation. The average time from onset to recovery for those who recovered was two weeks. A relapsing tendency was observed in 14 patients. A followup study of all patients after six months have elapsed is planned. The most common residuals observed in recovered patients were some uneasiness, present in 7 cases, and some degree of amnesia for the acute episode, observed in 6 cases. The degree of memory loss was difficult to evaluate because almost all patients had been heavily sedated prior to admission.

C. *Symptomatology.*

The chief prodromal symptoms elicited were the personality changes characteristic of an increasing difficulty in personal adjustment. The most common early symptom complex was rising tension, frequently manifested by apprehensiveness, increased sullenness, irritability, and tendency to temper outbursts. This state of mind is a typical concomitant of emotional conflicts. It was reported in 34 cases. This picture was usually colored by somatic expressions of autonomic disturbance, such as headaches, dizziness, gastrointestinal disturbances, palpitation, and urinary frequency. One or more of these were reported in 37 cases. Complaints of lassitude, fatigue, or weakness were fairly frequent. Appetite tended to be decreased. Insomnia was common and sleep was often disturbed by dreams. These might be consoling or reassuring, for example, dreams that the patient was at home; but more often they were terrifying.

As the patient became increasingly preoccupied with the struggle to maintain his emotional equilibrium, concentration and memory difficulties appeared. Patients complained that they forgot orders while trying to carry them out. They tended to become apathetic and to lose interest in their work, as their energies were more and more dissipated by the internal struggle. There was an increased tendency to worry, usually over home conditions, sometimes over the patient's own symptoms. Depression was often a striking feature of the prodromal period. Many patients became acutely aware of their declining efficiency with a resulting decline of self-confidence and feeling of failure. As the ego became overwhelmed, the patient tended to lose his landmarks of personal orientation. Things seemed "funny," everything seemed to go wrong. He felt perplexed, dazed, uncertain of the identity of himself or of those about him or of his location. With this decline of grip on reality, projective tendencies might appear. The patient might feel that people were laughing at him, were criticizing him for slumping in his work, conspiring to prevent his doing a good job, or, on the contrary, that everyone was trying to help him.

The acute phase, like the prodromal one, showed certain uniformities of symptomatology despite great diversity. Confusion as to personal relationships was present in 35 patients, sometimes in the presence of perfectly clear orientation in other spheres. The patient might misidentify those about him. He might scrutinize every statement made or question asked by others for hidden meanings. In the setting of defective grasp of reality delusions and hallucinations appeared. One or the other of these phenomena were present in 40 cases. Both tended to reflect either the forces threatening the ego or those tending to bolster it against the attack. The former were manifested by ideas of

reference or persecution—people seemed to be nagging, threatening, critical, ridiculing or trying to prevent the patient from demonstrating his great talents. The latter were usually of a grandiose sort, often with a religious coloring. The patient might believe that he was Christ or God, that he could kill his enemies with a word, or that he was the most powerful man in the world.

Not uncommonly the delusions or hallucinations were the direct expression of wishes. The patient might insist that he was at home, that his dead father was alive, or that his wife was in the next room. Reassuring voices of family members were often reported. A mood of elation usually accompanied dominant ego-protective trends, while depression or anxiety tended to signify ascendance of the ego-threatening forces. Anxiety was clearly apparent in 31 patients.[4] Accompanying the changes in the mental trends was great variability of psychomotor activity. All manifestations often showed rapid changes, sometimes from one extreme to the other, mirroring the fluctuating balance of threatening and defensive forces.

The patients showed a high degree of variability in their attitudes toward others. These varied from a literal reaching out for help by clinging to the ward officer's hand, to intense suspiciousness and hostility. Typically they showed ambivalence, with frequent fluctuations between these extremes. The dominant tendency, however, was usually in the direction of trying to establish contact.

IV. ETIOLOGICAL FACTORS

A. *Predisposing Factors.*

The most outstanding feature of the case material was the frequency of strong predisposing factors in both the family and personal backgrounds. These were marked in 31 cases and played some part in an additional 12 cases. In only 4 patients who gave an adequate history was the previous adjustment good. Some degree of mental deficiency was apparent in 5 patients. The average age of these patients was 24.2 years, which corresponds closely to that found by Parsons [Parsons, E. H.: Military Neuropsychiatry in the Present War. Ann. Int. Med. 18: 935–936, June 1943] in a similar group of cases. The average age of 100 nonpsychotic controls was 27.1 years. This bears out the expectation that less mature individuals are more vulnerable to the stresses of army life. From these data it is apparent that in this theater as everywhere, psychotic reactions appear chiefly in predisposed persons. The apparent greater frequency of difficulties in living in the backgrounds of psychiatric as compared with other patients may be partly an artifact due to difference in evaluation of their past lives by the two groups. Many psychiatric patients having suffered a personality breakdown are eager to find an explanation for it, hence might stress traumatic experiences in their past lives which individuals not so motivated might more readily forget or gloss over if remembered.

That these patients also made a relatively inferior adaptation is shown by the data of Table II.

TABLE II. DIFFICULTIES OF ARMY ADJUSTMENT

	Psychotics No. 50	Nonpsychotics No. 100
Rank:		
Pvt. Pfc.	76%	61%
T/5 Cpl.	16%	18%
Above Cpl.	8%	21%
Demoted	34%	10%
Punished	48%	34%

[4] None of these cases were of the type described by Grinker [Grinker, Roy R., and Spiegel, John P.: War Neuroses in North Africa. Josiah Macy Jr. Foundation, September 1943].

About three times as many psychotic patients as controls had been demoted. A larger percentage of psychotics than controls had been punished for infractions of discipline. Furthermore, 76% of the patients were privates or privates first class, compared with 61% of the controls. At the other extreme, only 8% of the patients had reached a higher rank than corporal, compared with 21% of the controls. These figures suggest that examples of superior army performance were less frequent among the psychotics.

B. *Situational Factors.*

The elements of a civilized community which make for feelings of security and personal satisfaction are strikingly absent in New Guinea. In addition to these deprivations, the soldier in this area must often contend with heat, rain, mud, insects, poor food, and lack of recreational facilities. Jungle warfare has certain disturbing aspects which are not so prominent in other types of fighting. The invisibility of the enemy, the danger of becoming lost or cut off, the difficulty of the terrain, and the uncertainties of the night constantly harass the soldier. These stresses operate, of course, on all soldiers in this area to a greater or lesser degree.

That the psychotic patients had been on the whole less exposed to these stresses than nonpsychotic controls is indicated by the data of Table III.

TABLE III: EXPOSURE TO CERTAIN HARDSHIPS

	Psychotics No. 50	Nonpsychotics No. 100
Average months in tropics	7.0	12.2
Lived in uncleared jungle	52%	75%
Believed climate injured health	46%	68%
Saw enemy action	50%	76%
Wounded or concussed	15%	35%

The psychotics had been in this area a shorter time, fewer had lived in uncleared jungle or felt that the tropical climate had injured their health. Fewer had seen enemy action. The combat experiences of the psychotics seem to have been less severe, in that fewer received wounds or suffered concussion. Those psychotic patients who were in combat areas, with or without actually experiencing combat, remained an average of only three months before breaking down. From these data it appears that the psychotic patients were more susceptible to the stresses of this area than the nonpsychotic ones. That is, they had experienced fewer hardships for a shorter time before breaking down.

These hardships seemed to intensify or generate certain disruptive emotions in the study patients. The most prominent ones were homesickness, resentment, and insecurity feelings. Longing for or worry about parents, wife, or girlfriend was strongly present and seemed clearly to play a significant role in 18 of the patients, and were present to some degree in an additional 20.

Twenty cases expressed strong resentment and an additional 15 showed some degree of this emotion. The usual manifestations of this were feelings that an officer or superior noncommissioned officer was incompetent, hypocritical, failed to bestow adequate recognition for work accomplished, or showed unfair discrimination against the patient. At times resentment seemed directed diffusely toward the army in general, for inducting the soldier in the first place when his family allegedly needed him, or for bringing him to a spot like this. Feelings of insecurity usually centering on fear of disease, jungle conditions, or combat were strongly present in 14 cases and present to some degree in 30. Of those cases on whom adequate histories were obtained, only one showed none of these three attitudes.

Resentment, homesickness, and insecurity feelings are intensified by the hardships of life in the tropics. The discomforts of living conditions inevitably arouse some resentment, and environment full of hidden threats cannot fail to give rise to some anxiety, and all such factors operate to increase a longing for the comforts and security of home.

These three emotions are closely interrelated, and tend reciprocally to intensify each other. The anxious individual feels an increased longing for the security of the family circle. He may feel resentment toward his superiors for doing nothing to allay his distressing feelings. Resentment toward superiors creates insecurity, because it carries with it the threat of counter-hostility from the people on whom his welfare largely depends. Emotional dependence on home tends to give rise to "separation anxiety," with accompanying resentment toward superiors, as parent-substitutes, for not supplying the emotional support the patient craves.

To what extent these reactions caused the psychotic breakdowns and to what extent they were manifestations of them, could seldom be determined with any accuracy. Thus homesickness might appear as a sign of regression to earlier emotional attitudes only after the patient's adjustment had begun to break down. Resentment might be an expression rather than a cause of the irritability which so often heralded a psychotic episode. Anxiety is, of course, the characteristic sign that the stability of the ego is being threatened. All that can be said, therefore, is that the destructive triad of resentment, homesickness, and insecurity feelings was very frequently present in these patients, that they were closely interwoven, and that they both contributed to and were manifestations of the psychotic breakdown.

The following case is presented to illustrate the interplay of the various factors discussed above.

Psychosis, undiagnosed. This 24-year-old white corporal, personnel clerk in a station hospital, was pampered by a nervous mother in childhood, was "anemic," very timid, had nightmares, talked in his sleep and was enuretic. He worked for a relative after graduating from high school, never emancipating himself emotionally from his family. His interests were solitary, such as listening to music. Sex activity was inhibited. He had "sinusitis" for many years.

He had about 18 months army service, 9 overseas, 2 of them in a combat area in New Guinea. Nervousness and "sinusitis" increased from the time of induction and he felt himself becoming steadily weaker. His army adjustment was not good. He disliked his work because of its routine nature and lack of responsibility, resented being only a corporal and having to take orders from men who passed OCS, which he had failed.

Before coming overseas he worried over tales about tropical diseases, the climate, and the supposed ill effects of Atabrine. He felt that the climate had injured his health.

He stated that conditions were chaotic during the setting up of the hospital in the combat area. He claimed that his C.O. was incompetent, dishonest and dissolute. Added sources of emotional strain were rumors of coming attacks by the enemy, attending the autopsy of a friend who had died, and learning of the death or injury of some relatives in battle. He became increasingly homesick, worried about his parents' health, longed for his fiancee. He felt increasingly depressed, fatigued, and apathetic. His headaches increased, he became enuretic, couldn't sleep, had nightmares with religious content, lost his appetite. Because of concentration difficulty he lost confidence in his ability to do his work. He began to feel that he was being spied upon and checked on.

He was hospitalized for "sinus trouble," rapidly became confused and excited, alternately debased and glorified himself, said he talked with God, and seemed preoccupied. He stated that first he thought he was a Jap prisoner, then that he was in heaven, then that he was hypnotized. Everything he touched seemed charged with electricity. On admission to this hospital he was nude, defecated on the floor "to teach me regular bowel habits." He showed shallow emotionality with nervous grinning, was restless, occasionally jerked his head in a manneristic fashion. By the day following

admission he had become cooperative, was in good contact, spoke coherently and with only an occasional interjection of an irrelevant remark, such as "I don't even care if I'm sterile." He still had marked concentration difficulty and could not do elementary calculations or detect simple absurdities.

He steadily improved and was essentially symptom free within a week. At the end of a month the only residuals which could be found were slight subjective concentration difficulty and a tendency to become tremulous on exercise. He mixed well with other patients and participated fully in ward activities. Memory for the events of his illness gradually returned, and he showed good insight.

C. *Organic and Toxic Factors.*

Although the adverse living conditions of this area were reflected to some extent in the physical as well as mental states of the patients, in general, their physical condition was no worse than that of the general soldier population. No serious organic illnesses were encountered. Mild anemia was frequently found, but in no case was the hemoglobin below 69%. Many patients were underweight. Both these findings were equally common among nonpsychotic soldiers. A fever on admission of above 100° F. was not uncommon. It usually subsided within 24 hours and was probably attributable to dehydration.

Heavy alcohol consumption appeared to be a possible contributory factor in 7 cases, none of whom showed a typical alcoholic psychosis. In only one other case, in which an attack of german measles with a fever of 104 may have helped to precipitate the psychosis, was a relationship between a particular noxious influence and the psychotic picture suggested.

Abnormal electroencephalographic tracings were found in 16 cases, which is no higher than the expected incidence in any group of psychotic patients.[5]

The possibility that Atabrine might play a contributory role was particularly investigated and the results appeared to be negative. None of the cases reported an excessive Atabrine intake preceding hospitalization, the highest being 12 tablets (1.2 gm.) a week. The average admission blood level for the psychotics was the same as that for nonpsychotic controls. The recovery rate for patients changed from Atabrine to quinine was not significantly different from those kept on Atabrine, despite a marked drop in blood Atabrine level. In none of the cases who were taken off Atabrine and then put on a therapeutic dose were there any significant changes in symptomatology corresponding to changes in blood Atabrine level.

These results do not exclude the possibility that sensitivity to Atabrine might contribute to a psychotic reaction in a rare case. They do seem to justify that conclusion that Atabrine does not play a significant role in the production of psychoses in this area.

In short, if organic or toxic factors played any part in the etiology of the psychotic reactions, it was probably through decreasing the individual's general capacity for adaptation. These influences, in any case, were not sufficiently strong or prevalent to account for the greater number of psychotic reactions in this theater.

V. DISCUSSION

In attempting to evaluate the results of this study as regards the light they shed on the increased incidence of psychoses in this area, it appears, first, that environmental stresses here were seldom if ever sufficient in themselves to cause psychotic breakdowns. The group of psychotic patients studied showed the same high incidence of predisposing background factors as is met with in the general run of psychiatric experience. The great

[5] Personal communication, 1st Lt. Carlton G. Holland, MC.

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majority had manifested adjustment difficulties before entering the army, and many had made a poor adaptation to army life before reaching this theater. Their increased vulnerability was borne out by the fact that, in general, they had experienced less hardship before breaking down than did a control group of nonpsychotic patients. This raises the possibility that the greater frequency of psychoses in this area might be due to the fact that a larger number of predisposed individuals have been sent to this theater. There is, however, no reason to believe this to be the case, and it may be rejected as highly improbable.

As regards conditions peculiar to this theater which might account for the larger number of psychotic reactions, there was no evidence that specific organic or toxic factors were responsible. Nor can it be assumed that the psychobiological stresses of this area are necessarily more severe. It is possible, however, that the increased incidence may be due to certain qualitative differences between the conditions of the different theaters. In Europe and North Africa, although soldiers must face very severe hardships and dangers, they are likely to be of relatively short duration. Periods of intense combat alternate with periods of relative inactivity. Tours of duty in combat areas are broken by furloughs to civilized communities. In this theater the threats to personal security are unremitting. Soldiers may be exposed for many months to heat, rain, mud and insects. They live under the constant fear of tropical disease and venomous animals, the menaces of which are exaggerated by many soldiers. In the words of Major General J. Lawton Collins: "From the purely physical standpoint the Pacific campaigns have been infinitely worse for the private soldier. There he's had to live in the heat and filth of the jungle, worrying about malaria and the fact that a scratch may develop into a tropical ulcer."

Similarly, certain combat dangers are of a persistent unrelieved type. Sniping and infiltration are continuous, ever-present menaces under conditions of jungle warfare. The all pervasive and unremitting nature of these stresses allows comparatively little respite during which the soldier might recover his energies. Because of their diffuseness, they afford no points against which the soldier might mobilize his powers of resistance, as he could to meet a well-defined threat.

The influences are aggravated by the absence of the comforts and companionships of civilization, for which moving pictures, radio, and an occasional stage show are inadequate substitutes; and by the inability, due to the need for conserving manpower, to grant leaves as frequently as would otherwise be desired.

These circumstances combine to encourage in certain predisposed soldiers a feeling that they have been cast loose and abandoned in a hostile world, with little if any prospect of return to security. This frame of mind, with its discouragement, self-pity, and resentment, is conducive to personal breakdown. It is suggested that the unrelenting quality of these physical and emotional strains may exceed the breaking points of more soldiers than do conditions in North Africa or Europe.

VI. SUMMARY AND CONCLUSIONS

1. The purpose of this study was to investigate etiological factors responsible for the high incidence of psychotic reactions in New Guinea.
2. Fifty hospitalized psychotic enlisted men were studied for a period of from three to eight weeks.
3. The most common psychotic reaction was characterized by a prodromal period of rising tension and other signs of an impending break in personal adjustment. This typically culminated in an acute episode. Although the symptomatology was quite varied, common features were perplexity, anxiety, hallucinatory and delusional phenomena. These episodes tended to subside rapidly, often leaving as residuals partial amnesia for the acute period, and diminished self-confidence.

4. 26% were apparently recovered and an additional 34% were improved at the time of discharge.
5. Predisposing background factors were strongly present in 62% and present to some extent in an additional 24%.
6. The patients had, as a group, been in the tropics a shorter time and undergone less hardship or combat than a group of nonpsychotic controls, confirming their greater susceptibility to stress.
7. Resentments, homesickness, and insecurity feelings were the chief emotional disturbances observed in this group, and seem to have played a significant part in the psychotic episodes.
8. There was no evidence that Atabrine or any diseases or toxic factors peculiar to New Guinea played a significant role in the causation of the psychotic reactions.
9. It is suggested that the increased incidence of psychotic reactions in this area may be due to the constant, unrelieved character of the stresses met with in New Guinea.
10. It is concluded that the increased incidence of psychotic reactions is due to the fact that the hardships and deprivations of New Guinea exceed the adjustive capacities of a larger number of predisposed individuals.

APPENDIX J

Psychiatric Casualties in Pilots Flying the China Hump Route

Major M. F. Greiber, MC

INTRODUCTION

"Hump" pilots were seen at the 111th Station Hospital and later at the 234th General Hospital from October 1943 to August 1945. The "Hump" traffic in the early days as at present revolved around bases in the valley; three in the vicinity of Chabua and three others about 200 miles to the south. Planes operating from four of these bases were either C–46's or C–47's. The C–47 was the plane used most frequently in the early period of 1943 and 1944. The C–87 was used exclusively at two of the bases; this was a four-motored transport plane used exclusively to fly high octane gasoline and bombs across the "Hump."

In the period 1943–44 before Northern Burma was retaken, the route was one of the most hazardous in the world. Pilots had to fly the Northern route, which necessitated flying from 20,000 to 25,000 feet most of the way so as to avoid Japanese fighters based in Northern Burma. The planes were unarmed, and they were flown regardless of weather; maintenance was poor because of lack of spare parts and trained ground personnel. In those days, many a plane was "checked out" which would be grounded permanently at this time. Pilots had to contend with fog, sleet, snow, and Japanese fighters who were always on the alert to shoot down their helpless prey. In those early days, radio communications were poor, with the only communication outpost located at Fort Hertz in Northern Burma. As weather conditions were frequently bad and as radio contact was limited, many planes were lost over the "Hump" never to be heard from again. Later, many radio stations, called "hill stations," were set up along the route to aid the pilots in plotting their course.

The first group of "Hump" pilots seen psychiatrically were stable individuals who had flown hundreds of hours over the "Hump" in poorly serviced planes and who had experienced one "close call" after another. These men often "were through"—they had severe chronic anxiety reactions, that is, severe flying fatigue, and were either sent home because they had completed 800 to 900 hours over the "Hump" or assigned to valley flying which was less arduous.

As time went on, the traffic became greater and more pilots arrived in the area. In the newer group began to appear service pilots—civilian pilots who had become Army pilots because of their civilian experience. As a whole, this group had flown many hours but under ideal conditions; they were in an older age group and did not have the desire or the courage to fly the most hazardous route in the world. Many of these had poor psychiatric backgrounds. They were in a lower intelligence group and had had previous neurotic difficulties; many fell into the flying "tramp" category. These pilots often stated "they'd be dammed if they'd risk their lives as those kids did." In this group, we saw many of whom we classed as defaulters; individuals who suffered mild anxiety symptoms after 20 to 100 "Hump" hours and then tried to "escape" further flying by minor symptoms which did not incapacitate them. In this group, Pentothal was given frequently to rule out unconscious anxiety, hostility, or aggression, which in the majority of the cases did not exist. These pilots were either returned to flying or reclassified if they refused to fly. One of these, a captain with over 5,000 hours flying time, who did

not have anxiety symptoms but refused to fly the "Hump," was given a general court-martial, receiving a 3-year prison sentence as well as a dishonorable discharge.

The factors which follow, classed as anxiety producing and anxiety alleviating, were deemed so important that they are outlined to present the psychiatric aspects of "Hump" flying.

ANXIETY-PRODUCING FACTORS

1. Flight under poor weather conditions in an unarmed cumbersome plane which was defenseless against fighter opposition.
2. Lack of confidence in the airplane; that is, in the early days there were many mechanical "wrinkles" which had not been "ironed out."
3. The possibility of death in the jungle even though a successful "bailout" had been made.
4. The desire to fly: many pilots had little desire to fly because of the type of cargo which they had to fly "over the Hump" at the risk of their lives.
5. The ultimate disposition of urgent supplies which they had to fly over the "Hump"; that is, material either stolen or not used after the destination was reached.
6. The individual pilot's threshold of anxiety in reference to stress and strain.
7. The morale of the pilot varied according to the group morale at his particular base. If the morale of his unit was good, the threshold of anxiety was bolstered for the individual pilot concerned.
8. The confidence of the pilot in his ability to fly, this being conditioned by 6 and 7.
9. The "legend of the Hump." Many pilots literally had "Severe Hump Fever" secondary to the fantastic tales they had heard concerning the "Hump" before they ever flew it.

ANXIETY-ALLEVIATING FACTORS

A. General

1. Inexperienced "Hump" pilots were utilized only as copilots until they knew the route and gained confidence in the plane.
2. The establishment of a school to which copilots were sent before being checked out as first pilots.
3. The attempt to increase morale at the various bases:
    a. The establishment of recreational programmes.
    b. Friendly rivalry between bases competing to see who could move the greatest tonnage over the "Hump" in a definite period.
    c. The establishment of a definite number of hours to be flown after which the pilot would be sent home (750 hours).
    d. The grounding of planes that were mechanically questionable for flight.
    e. Closing the "Hump" if weather conditions were adverse.
    f. The increase of radio hill stations to guide the pilot and aid him if he were "lost."

B. Medical

I. *At the Base*

1. Grounding by the flight surgeons of pilots who developed psychoneurotic reactions.
2. Superficial psychotherapy at the base by the flight surgeon.
3. The close liaison which was maintained between the flight surgeons and the psychiatrist at the 234th General Hospital, who evaluated and treated their hospitalized cases.

4. The authorization of rest leaves away from the base when flying fatigue had developed.

5. The equipment of parachutes with "jungle kits" which contained rations, emergency medical supplies, and equipment to help personnel survive if lost in the jungles or mountains.

6. The establishment of a rescue squadron which searched for lost crews, and rendered emergency medical care, if needed, at the scene of the crash or "bailout."

II. *At the Hospital*

1. Complete psychiatric workup of the pilot.
2. The evaluation of the reaction.
   a. Defaulter group.
   b. Flying fatigue.
   c. True psychoneuroses.
3. Treatment of the reactions.
   a. Personal interviews.
   b. Sedation.
   c. Narcosynthesis.
4. Aid to the flight surgeon in the disposition of the pilot.

DISCUSSION

As all of the author's work was done in the hospital, only the cases which were in need of definite classification or treatment were seen there.

On admission, the pilot was given a complete psychiatric workup with emphasis being placed on the time he had been in the theater, the number of hours he had flown, the number of times he had been grounded, and the number of "close calls," crashes, and bailouts he had experienced.

When the above had been accomplished, the pilot was classified into the defaulter group, the flying fatigue group, or the psychoneurotic group. The majority of the cases fell into the anxiety reaction group, the anxieties often being colored by psychosomatic symptoms referable to the gastrointestinal tract. Few frank conversion hysterias were seen. These almost exclusively fell in the defaulter group where a huge conscious element was present. The flying fatigue group was most frequently seen but in a number of cases the basic personality and past history indicated a definite psychoneurotic reaction.

Treatment varied in the individual case. In the defaulter group, little success was achieved. These individuals did not desire to fly, had a fear of flying, and had made up their minds that they would not fly. Pentothal was given in these cases not as a therapy but to rule out unconscious anxiety which, as we expected, did not exist.

The flying fatigue and psychoneurotic groups were treated in two ways. In the group where the conflict was superficial, heavy sedation at bedtime for 4 to 5 days plus daily interview was all that was needed.

In the moderate and severe cases where deepseated and unconscious anxiety was present narcosynthesis was used. These reactions were seen in pilots who had either flown many "Hump" hours (300 hours or more), who had had many close calls, bailouts, or crashes, or were in the group who experienced close calls or bailouts early in the course of their "Hump" career. In this group, the response to therapy was gratifying and, although accurate figures are not available, about 70 percent returned to "Hump" flying.

The largest number of casualties came from the two bases which flew gasoline and bombs exclusively. These bases also had the greatest percentage of service pilots, a fact which also helped to reduce the morale of the base. It was felt that the factors of flying dangerous cargo plus the type of pilot contributed to the higher rate of psychiatric casualty.

Disposition of the pilot who was hospitalized was made after consultation with the Consultant Flight Surgeon who usually was the wing surgeon for the valley bases or the base surgeon at the Chabua airfield, the largest field in the valley. The following factors governed disposition: General basic personality, degree of anxiety, zest to fly, emotional traumata experienced, and number of "Hump" hours flown.

Pilots who had severe flying fatigue and who had completed over 400 hours of flying time in the theater were often sent home administratively. Only one pilot was evacuated medically as a severe anxiety state. If marked improvement occurred with the hospitalization, the pilot was returned to "Hump" flying or to valley flying, dependent upon the factors previously mentioned.

The pilots who fell in the defaulter group or who grossly exaggerated minor symptoms were returned to "Hump" flying usually as copilots, flying with "exceptionally good pilots." If they again failed, they were brought before a flying evaluation board and grounded.

SUMMARY AND CONCLUSIONS

1. One hundred and fifty-one "Hump" pilots were treated at 234th General Hospital because of psychiatric difficulty, from October 1943 to August 1945.
2. The reactions most frequently encountered were in the anxiety group.
3. Hospitalization resulted in the elimination of defaulter pilots and their segregation from the group that actually needed therapy.
4. Therapy found most efficacious was sedation and daily interview in the milder reactions and narcosynthesis in the moderate and severe reactions.
5. Of the 151 pilots seen, 60 percent returned to "Hump" flying; 20 percent were sent home because of flying fatigue; 10 percent went back to flying a less hazardous route; and 10 percent were permanently grounded.
6. Through the cooperation of the flight surgeons of the ATC, an excellent liaison was maintained between the hospital and the Air Transport Command.

APPENDIX K

Consultant's Composite Report of Toxic Psychoses Due to Atabrine, India-Burma Theater

Lieutenant Colonel John R. S. Mays, MC

THE PROBLEM

Toxic psychoses due to Atabrine (hydrochloride quinacrine) were first observed in the India-Burma theater by Maj. Herbert S. Gaskill, MC, chief of neuropsychiatry, at the 20th General Hospital, in 1943. These were sporadic cases that occurred mainly in Chinese soldiers subsequent to the administration of Atabrine for the treatment of malaria.

The phenomenon of toxic psychosis was brought to the attention of the theater surgeon's office in July 1944, when an original article by Major Gaskill and Lt. Col. Thomas Fitz-Hugh, Jr., MC, was received with the request that the paper be forwarded to The Surgeon General's Office for publication.[1] The paper apparently was not taken very seriously and most of the medical officers in the theater surgeon's office doubted that Atabrine was the etiologic agent. They believed the patients in question suffered from the usual constitutional psychoses and that the ingestion of Atabrine was an incidental and unrelated factor.

In December 1944, however, when information was received from the 20th General Hospital that four American patients had been evacuated to the Zone of Interior for Atabrine psychoses, the news provoked much discussion, and letters were immediately dispatched to the hospital requesting the clinical facts upon which the diagnoses were made. There followed an exchange of letters in which the differences of opinion were not resolved. This was due in part to the fact that some of the psychiatrists in their enthusiasm tended, at times, to make the diagnosis of Atabrine psychosis without sufficient justification, and partly to the reluctance of the surgeon's office to accept the possibility that a constitutional psychosis could be "produced" by Atabrine suppressive therapy.

It was in the midst of this battle of professional opinions that the writer arrived and the problem was gladly passed on to him for solution.

On 10 March 1945, in an effort to effect a reconciliation of the two schools of thought and to formulate a more factual basis for the study of the problem, I wrote a letter to the commanding officer of the 20th General Hospital, in which I suggested a method of study to resolve the question of Atabrine psychosis.[2] A similar letter was forwarded to Maj. Marvin F. Greiber, MC, chief of neuropsychiatry at the 234th General Hospital, who was also working on this problem.

METHOD OF STUDY

The occurrence of psychoses following the administration of Atabrine brought up the question: Is this a toxic psychosis due specifically to Atabrine, or is it just another

[1] Gaskill, H. S., and Fitz-Hugh, T., Jr.: Toxic Psychoses Following Atabrine. Bull. U.S. Army M. Dept. No. 86, March 1945.

[2] This letter and the detailed review of the records and the examination of patients with Atabrine psychoses by the consultant in neuropsychiatry on his official visits did much to stimulate the psychiatrists working on the problem and to effect a professional agreement between the two factors.

case of schizophrenia or manic-depressive psychosis in which the administration of Atabrine was coincidental? To formulate the diagnostic criteria for an Atabrine psychosis, the following definition was generally adopted by all psychiatrists working on the problem: An Atabrine psychosis is a psychosis characterized by a sudden onset, a brief and bizarre course, and an abrupt termination with relatively complete recovery; the psychosis occurs during or shortly after Atabrine therapy in a well-adjusted personality or in a predisposed personality that was maintaining a satisfactory adjustment at the time of his illness.

All cases were divided into two categories: (1) Cases that developed a psychosis following Atabrine medication for malaria,[3] and (2) cases that developed a psychosis on Atabrine suppressive therapy.[4]

Each of these categories was subdivided into two groups, according to whether Atabrine was considered the primary or the precipitating etiologic factor in the psychosis. When the psychosis occurred in a "normal" or well-adjusted personality as a result of the ingestion of Atabrine, the drug was recorded as the *primary* etiologic agent. When the psychosis occurred after the administration of Atabrine in a predisposed personality, Atabrine was considered the *precipitating* or "trigger mechanism" factor in the production of the psychosis. Therefore, in every psychosis in which Atabrine was suspected as an etiologic factor, it was necessary to determine (1) whether Atabrine was the *primary* etiologic agent, (2) whether it was the *precipitating* agent, or (3) whether the administration of Atabrine and the appearance of the psychosis was entirely *coincidental.*

With the introduction of these considerations, the longitudinal study of the patient's personality assumed fundamental importance. In each instance, therefore, in addition to a description of the onset of his illness, all available information was obtained on the patient's premorbid personality and on the type of adjustment he had made in the unit. Major Greiber, at the 234th General Hospital, also obtained, from the Zone of Interior, a psychiatric social history on all of his patients.

Special features of the psychoses investigated included a study of the clinical patterns of reaction, Atabrine blood levels, retesting with Atabrine the precipitation of epileptic seizures, and probable etiologic factors.

RESULTS

During the period from April 1943 to August 1945, 144 cases of alleged Atabrine psychoses were observed in the India-Burma theater[5] (table 1). Of the total 144 cases, 57 percent occurred on massive Atabrine therapy and 43 percent developed on Atabrine suppressive therapy. Atabrine was the primary etiologic factor in 47 percent of the cases and the precipitating factor in 53 percent. About 80 percent of the patients recovered sufficiently to be returned to duty, and 20 percent were evacuated to the Zone of Interior. The incidence of Atabrine psychosis among the patients to whom the drug was administered was 0.12 percent.

Time of Onset of Psychosis

The onset of the psychoses that developed during massive therapy was as early as the 3d day and as late as the 14th day after treatment was started. The average

[3] 0.2 gram of Atabrine every 6 hours, for 5 doses, and 0.1 gram three times daily for 6 days. Hereinafter referred to as massive therapy.

[4] 0.1 gram of Atabrine daily during the malaria season.

[5] Major Greiber, from the 234th General Hospital, reported on 46 cases; Major Gaskill and Colonel Fitz-Hugh, at the 20th General Hospital, reported on 84 cases; and Lt. Col. Edward N. Pleasants, MC, who replaced Major Gaskill as chief of the neuropsychiatric section at the 20th General Hospital, reported on 14 cases.—A. J. G.

TABLE 1.—*Statistical analysis of 144 cases of Atabrine psychosis, India-Burma theater, April 1943–August 1945*

Data	Greiber series	Gaskill and Fitz-Hugh series	Pleasants series	Total
Total number of cases	46	84	14	144
Number of psychoses developed in massive therapy.	9	65	8	82
Number of psychoses developed on Atabrine suppressive therapy.	37	19	6	62
Number of cases in which Atabrine considered primary etiologic factor in normal personality.	10	51	7	68
Number of cases in which Atabrine considered only precipitating factor (or trigger) in predisposed personality.	36	33	7	76
Average time of onset of psychoses after termination of massive therapy.	8 days	6 days	8 days	7 days
Time of onset of psychoses after beginning Atabrine suppressive therapy.	17 days to 6 mos.	18 days to 6 mos.	21 days to 6 mos.	19 days to 6 mos.
Average days duration of psychosis	21	35	31	28
Number of manic-like patterns of psychoses.	28	53	7	88
Number of schizophrenic-like patterns of psychoses.	18	31	7	56
Number of patients in whom psychosis was reproduced on retesting with Atabrine.	16 of 20	14 of 40	5 of 6	35 of 66
Returned to duty	37	74	6	117

time of onset was the 8th day. In the psychoses that occurred on suppressive therapy, the onset was extremely variable and occurred at any time from the 17th day to the 6th month after suppressive therapy was begun. Greiber [6] noted, in regard to the suppressive therapy group, that when Atabrine was the primary factor the average onset of the psychosis was the 62d day, when 6.2 grams of the drug had been taken.

Clinical Pattern of Psychosis

No specific clinical pattern of reaction characterized the Atabrine psychoses. In a general way, however, the Atabrine psychoses were differentiated from the constitutional psychoses by their sudden onset, short duration, and tendency to a rapid and relatively complete recovery. The pattern assumed was colored by the prepsychotic personality of the patient and was usually a pathological exaggeration of it. The schizoid personality tended to develop a schizophrenic-like psychosis, and the cyclothymic personality was inclined to develop a manic-depressive-like psychosis. The two major types of clinical

[6] Greiber, M. F.: "Preliminary Report: Atabrine Psychoses." Unpublished report submitted to consultant in neuropsychiatry, IBT, 18 Sept. 1945, for inclusion in the neuropsychiatric history of the India-Burma theater.

patterns observed were the manic-depressive-like reactions which constituted 61 percent of the cases, and the schizophrenic-like reactions which constituted 39 percent of the cases. In this connection, Gaskill and Fitz-Hugh [7] remarked:

"Of the two main prototypes, the first was characterized by sudden increase in motor and psychomotor activity, frequently accompanied by auditory and visual hallucinations, delusions, and in a few instances, by ideas of reference. To this was occasionally added disorientation. The effect was usually one of euphoria and expansiveness. The other type began more insidiously with gradual clouding of the sensorium, disorientation, and loss of recent memory. There was a tendency for these patients to fill in the amnesic blanks by confabulation. There was diminished activity in both the intellectual and motor spheres. These patients were withdrawn and seclusive, at times going to the extreme of catatonic negativism and mutism. The predominant effect was one of bewilderment and fearfulness."

Greiber [8] described the clinical patterns of reaction of his series of 46 cases as follows:

"The reactions seen in the cases studied fell into two general categories: a manic-like reaction and a schizophrenic-like reaction.

"The manic-like reaction made up 28 of the cases studied. In all these cases the onset was sudden, acute and explosive. The patients were admitted either by litter under the influence of heavy sedation, or were brought in by five or six fellow soldiers trying their utmost to control the patient. The individuals displayed marked hyperactivity, were constantly euphoric, were very fearful, were often combative and destructive, and displayed a marked flight of ideas. Delusions were common and hallucinations in both the visual and auditory spheres were present. Their hospital course was characterized by periods of the above mentioned behavior interspersed with periods of apparent lucidity during which the patients were pleasant, cooperative, and seemingly normal. The maintenance of physical nutrition was not a problem in this group, as these individuals took huge quantities of nourishment at all times. During the periods of agitation this group was exceedingly fearful and destructive, tearing up pajamas, mattresses, and even beds as they released their excess energies. In the suppressive group, the reactions lasted from 25 to 30 days, the return to normalcy occurring in a period of 24 to 48 hours. In the group encountered with massive Atabrine therapy, the duration of the psychoses was shorter, "clearing" occurring in 14 to 21 days.

"Seventeen cases demonstrated a schizophrenic-like reaction (reaction which crystallized into constitutional psychoses being included).

"In an attempt to classify the reactions, they were placed into three large groups: the catatonic, paranoid, and hebephrenic.

"The catatonic group was made up of seven cases. The onset in two of these cases was acute and explosive, with catatonic excitement being present on admission to the hospital. This stage was characterized by stereotyped movements such as clapping the hands and saluting repeatedly, echolalia, repetition of Indian phrases with exclusion of the English language, delusions, auditory hallucinations, and extreme combativeness and destructiveness. The excitement lasted for ten to fourteen days, after which the individual became pseudocatatonic. In this period, the patient often assumed catatonic postures, but in general, was dull and listless, with paucity and deliberateness of motor activities being a predominant part of the picture. One of the patients in this group was admitted in a catatonic stupor which persisted for four days, after which he became pseudocatatonic and then returned to normal. The remaining two patients in this group were

[7] See footnote 1, p. 1087.
[8] See footnote 6, p. 1089.

admitted in a pseudocatatonic state, this stage having gradually developed over a period of 48 hours. In these cases the return to normal was gradual and occurred in a period of 25 to 35 days.

"In the paranoid group, seven cases were seen. In all of these cases the onset was acute and explosive, three of the cases being admitted in an acute combative state from their units. Two other cases when admitted had suddenly, that morning, developed delusions of persecution directed toward other members of the unit, while one was admitted with grandiose delusions as to wealth with a basic paranoid trend directed toward other members of the unit. Four of these patients, although markedly paranoid were extremely euphoric at all times and were not problems in the ward. In these cases the paranoid trend gradually receded over a period of three to four weeks, and then suddenly disappeared. The fifth case in this series was extremely paranoid for three weeks; he was extremely combative and fearful, neglected all personal hygiene, ate insects, attempted to eat feces, refused all nourishment both liquid and solid, and became suicidal, attempting to gouge out his eyes and kill himself by butting his head up against the wall. This patient was seen in this state one evening three weeks after admission.

"The following morning he was seen at 0800 at that time, he was in the lavatory showering and shaving himself, he had already taken 2,000 cc. of fluids by mouth, and had eaten a huge breakfast. He was oriented, cooperative and pleasant. Close questioning failed to reveal any paranoid trends. From this period, until discharge from the hospital one month later, this patient remained normal in every respect.

"Four cases were seen in the hebephrenic-like group. The onset in these cases was also sudden, the patients usually being admitted because of bizarre behavior which had occurred prior to hospitalization. One of these individuals, a photographer in the Signal Corps, attached to an Air Corps Base, the morning of admission stole a pilot's flying equipment, managed to get into a plane at his base and almost succeeded in an attempt to take off the plane before he was forcibly removed from the plane. Another patient in this group, a pilot in combat cargo, was found in the office of his Commanding Officer in a disheveled condition, minus his shirt, sitting in the chair of the Commanding Officer with his feet perched on the desk. When reprimanded by his Commanding Officer, the pilot with a foolish grin commented, 'Oh, Major, don't get your bowels in an uproar.' The behavior of these patients in the hospital was characterized by total neglect of personal appearance, vivid hallucinations in the auditory and visual spheres, and silly, superficial behavior. As a group they gradually improved after two or three weeks and returned to normal at the end of this period."

Prognosis

In general, the prognosis for the Atabrine psychosis was excellent, as shown by the fact that 80 percent of the patients recovered sufficiently to be returned to an effective duty status. When a manic-depressive-like psychosis developed in a well-adjusted personality, following massive Atabrine therapy, the prognosis was most favorable. When, however, a schizophrenic-like psychosis developed in a predisposed personality during Atabrine suppressive therapy, the prognosis was least favorable for these psychoses were of longer duration and the majority of cases remained psychotic for 2 to 4 months.[9]

Greiber arbitrarily designated 35 days as the maximum duration of an Atabrine psychosis, and patients whose psychoses persisted beyond this period were excluded from the toxic group and diagnosed as constitutional psychoses.

[9] Essential Technical Medical Data Report, 20th General Hospital, India-Burma Theater, dated 26 Apr. 1945.

Blood Atabrine Level

Atabrine blood levels could not be quantitatively correlated with the onset, type, severity, or recovery of the psychosis. In this connection, Greiber [10] remarked:

"Levels were taken on admission to the hospital and when the patient recovered from his psychosis. Level over 50 gamma per liter were found in a number of the cases with several going as high as 80 to 100 gamma per liter. Others were found to be in the 30 to 40 gamma range, which was considered as slightly above normal for the area.

"An effort to correlate these levels with the psychoses was impossible as many individuals, nonpsychotic, in a control group from the surgical wards of the hospital had equally as high a level as the psychotic group.

"However, it must be stated, that in the four cases which in the opinion of the author had crystallized from toxic reactions to constitutional psychoses, the Atabrine levels ranged from 80 to 100 gammas per liter, the highest levels which were obtained in all cases studied, with the exception of one which fell into this range. The significance of this observation is not clear to the author, and definite conclusions cannot be drawn from such an observation * * *. Blood levels were again taken when the individual recovered from his psychosis. As would be expected the blood level was markedly reduced, a drop of 70 to 80 percent occurring at the conclusion of the psychotic reaction."

A comment on the Atabrine blood levels in the 20th General Hospital Essential Technical Medical Data report of April 1945 was: "Blood Atabrine levels at which individuals develop Atabrine psychosis are not necessarily higher than the average figure of patients treated with the drug who do not develop mental symptoms. It is probably not the blood level, but the cerebral tissue level that is one of the important factors."

Becker and his coworkers [11] studied the blood Atabrine levels in a group of 14 soldiers from the same area on Atabrine suppressive therapy, and found the mean level to be 23 gamma per liter. This level was reached 2 weeks after suppressive therapy was initiated and remained stable thereafter. There were no similar studies of Atabrine blood levels of patients on massive therapy available to the writer.

Retesting With Atabrine

Sixty-six patients who had recovered from Atabrine psychoses were retested by the readministration of 2.8 grams of Atabrine, orally, in a 7-day period, and 35 redeveloped psychoses (table 1). Five recovered patients were retested by being placed on suppressive therapy and three of them again became psychotic after receiving about 3.0 grams of the drugs. The reproduced psychoses were similar to the original psychoses, but as a rule of shorter duration. In rare instances, the patient failed to recover from the reproduced psychosis and was evacuated to the Zone of Interior.

Several cases were reported in which recovered Atabrine psychotics later experienced a second attack of malaria and were treated with massive atabrine therapy without developing a psychosis. For the 1943 series, Gaskill and Fitz-Hugh [12] reported that only one patient of 14 retested became psychotic. At the 20th General Hospital,[13] for the 1944 series, 26 patients were retested and 13 of them became psychotic. No explanation was offered for the failure to reproduce the psychoses in the patients of the 1943 series,

[10] See footnote 6, p. 1089.

[11] Becker, E. R., Burks, C. S., and Kaleita, E.: Plasma Atabrine Concentrations Attained by Subjects Taking 0.1 Gram of Drug Daily. J. Nat. Malaria Soc. 5: 165–168, June 1946.

[12] See footnote 1, p. 1087.

[13] See footnote 9, p. 1091.

except to postulate that the first attack had produced a temporary desensitization to Atabrine. Patients who developed their original psychoses on suppressive therapy appeared more liable to redevelop a psychosis on retesting than those patients whose original psychoses developed on massive therapy for malaria.

Greiber [14] skin tested 15 recovered Atabrine psychotics and 15 control psychoneurotics by the Atabrine patch test method. Skin sensitivity was present in only one instance—a control case.

In the absence of any analogous statistics in the three series, the writer is unable to draw any specific conclusions as to the significance of retesting. When the readministration of Atabrine fails to reproduce the psychosis in 50 percent of the patients, the mystery remains unsolved.

Epileptic Seizures

Greiber noted a marked increase in admissions for epilepsy following the inauguration of Atabrine suppressive therapy, and made the following comments in his report:

"Ten cases, all with negative histories and negative findings in the hospital, including the Pitressin test, were studied. Five were returned to duty on Atabrine and five were returned to duty, being taken off Atabrine. In the control group, readmissions did not occur. In the group returned to duty on Atabrine, three were readmitted because of seizures. In two of these cases, the Pitressin test was again negative, while in the third it was positive, and the soldier was evacuated to the Zone of Interior. The two remaining cases were returned to duty on quinine suppressive therapy and at the end of three months no further seizures had occurred.

"Whether Atabrine is a factor in the production of seizures is difficult to state. However, it is felt that electroencephalographic studies should be performed to determine whether the drug will modify the brain wave pattern and whether it might possibly cause individuals who have a cerebral dysrhythmia, but have never had a seizure previously, to actually increase the dysrhythmia to the point where an actual seizure might occur."

Epileptic seizures attributable to Atabrine therapy were not observed by the other investigators.

Etiology of Atabrine Psychoses

Frankly and briefly stated, the mechanism by which Atabrine produces a toxic psychosis is unknown. According to Gaskill and Fitz-Hugh: "This psychosis is a complex-conditioned sensitivity in which Atabrine is one of several factors which must coincide in the given individual in order to produce this syndrome." Greiber believed: "The primary group displayed a true sensitivity to the drug, whereas in the trigger group a predisposed personality as well as emotional conflicts or acute illnesses were as great a factor as the Atabrine itself."

COMMENTS

1. The writer is convinced that Atabrine psychoses represent a definite clinical entity. This diagnosis should be *reserved* for psychoses of sudden onset, short duration,

[14] See footnote 6, p. 1089.

and abrupt termination with relatively complete recovery; occurring during or shortly after Atabrine therapy in a well-adjusted personality or in a predisposed personality that was satisfactorily adjusted at the time of the illness.

2. The diagnosis can be made with accuracy and confidence when the psychosis developed in a well-adjusted personality during *massive* Atabrine therapy for malaria. In this instance, we have a direct temporal relationship to the malaria-Atabrine insult. The diagnosis is made with less certainty when Atabrine was the *primary* etiological factor in a well-adjusted personality and the psychosis developed after several months of suppressive therapy. The writer is reluctant to make the diagnosis when Atabrine was only the precipitating factor (?) in a *predisposed* personality and the psychosis occurred after several months of suppressive therapy. Here, so many ill-understood factors have combined to produce the breakdown, that it is often misleading to designate the illness as an Atabrine psychosis. When in this latter group of cases, "the psychosis crystallized into a constitutional reaction" the diagnosis of Atabrine psychosis should not be made. In this connection, it is imperative that a detailed longitudinal personality study be made of all patients suspected of this disorder to determine the presence or absence of psychobiological factors predisposing to the psychotic breakdown.

3. When a manic-depressive-like psychosis developed in a well-adjusted personality following massive Atabrine therapy, the prognosis was most favorable. When, however, a schizophrenic-like psychosis developed in a predisposed personality during Atabrine suppressive therapy, the prognosis was least favorable.[15]

4. Atabrine blood levels could not be quantitatively correlated with the onset, type, severity, or recovery of the psychosis.

5. The psychosis was reproduced in 53 percent of the patients when Atabrine was readministered. No satisfactory explanation is available for the failure to reproduce the psychosis in the remainder of the group.

6. The evidence presented by one of the investigators to the effect that Atabrine suppressive therapy could possibly serve to precipitate epileptic seizures is inadequate and unconvincing. Electroencephalographic studies would have been of interest in these cases.

7. The incidence of this psychosis was approximately 0.12 percent, or less, of the cases that received massive Atabrine therapy or Atabrine suppressive therapy. The rarity of Atabrine psychoses constitutes a negligible factor in the utilization of the drug when indicated by military considerations.

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[15] Col. Donald B. Peterson, MC, USA (Ret.), who had served at the 142d General Hospital in Calcutta, made the following comment: "We held 'Atabrine psychosis' patients awaiting evacuation to the ZI. They appeared to be yellow complexioned schizophrenics. Since both Gaskill and Greiber stated that those, more schizophrenic than manic, had a much poorer prognosis, it is not remarkable that the more schizophrenic would make up the greater proportion of those evacuated. The studies of the problem were very thorough with the exception that nowhere is found mention of an attempt to correlate the psychosis with manufacturer's batch of the drug."—A. J. G.

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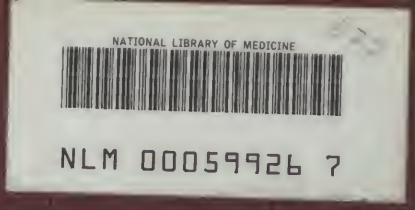
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